



CPC464

CPC6128

GT65

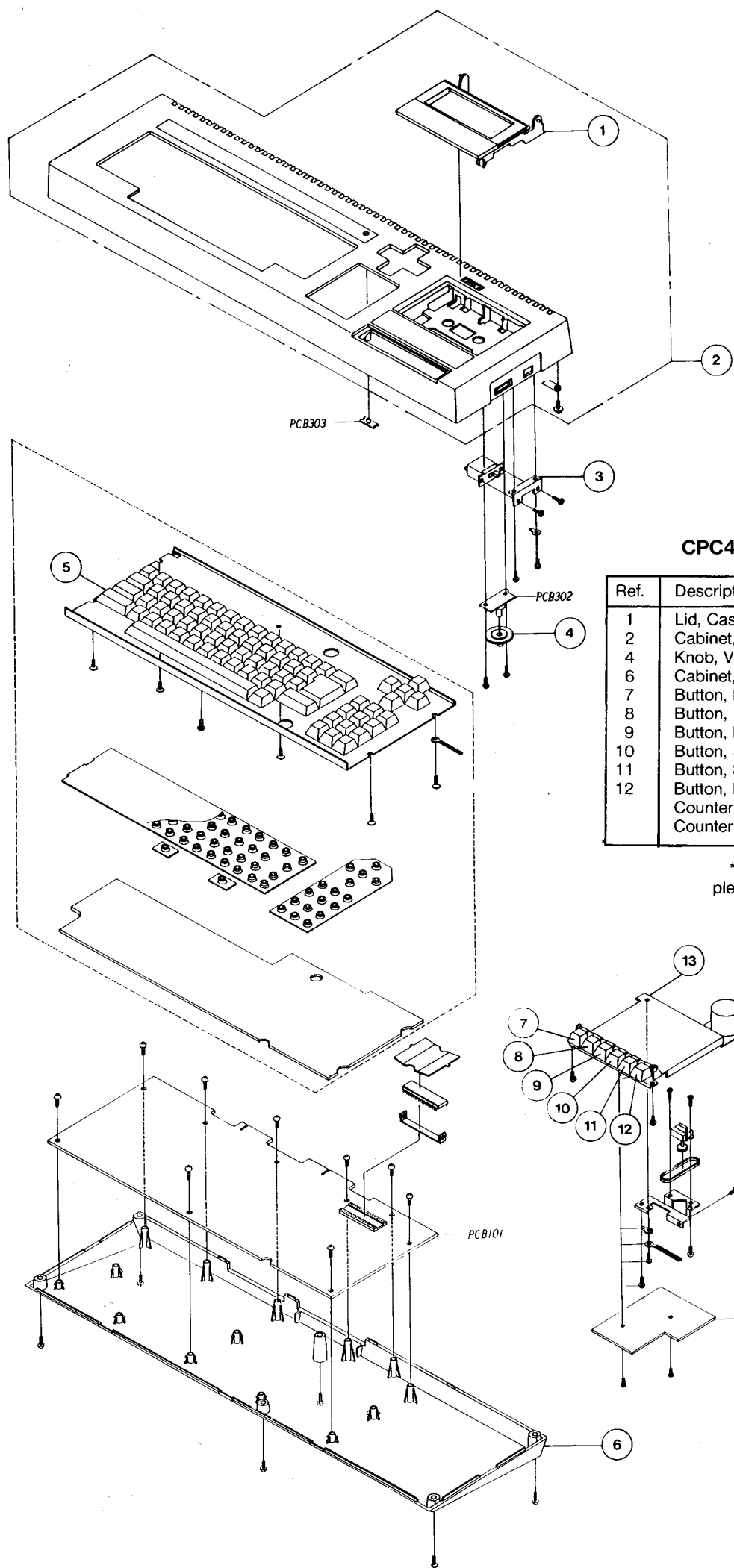
CTM644

MP3

CT1

**AMENDMENT
SERVICE MANUAL**

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CPC464 CABINET PARTS LIST

Ref.	Description	Part No.
1	Lid, Cassette Assembly	170006
2	Cabinet, Top Assembly	170031/A
4	Knob, Volume	170004
6	Cabinet, Bottom	170030/A
7	Button, Record	170015
8	Button, Play	170016
9	Button, Rewind	170017
10	Button, Forward	170018
11	Button, Stop/Eject	170019
12	Button, Pause	170020
	Counter Belt	170014
	Counter	170013

*For parts not listed in this
please refer to original manual.

CPC464 ELECTRICAL PARTS LIST

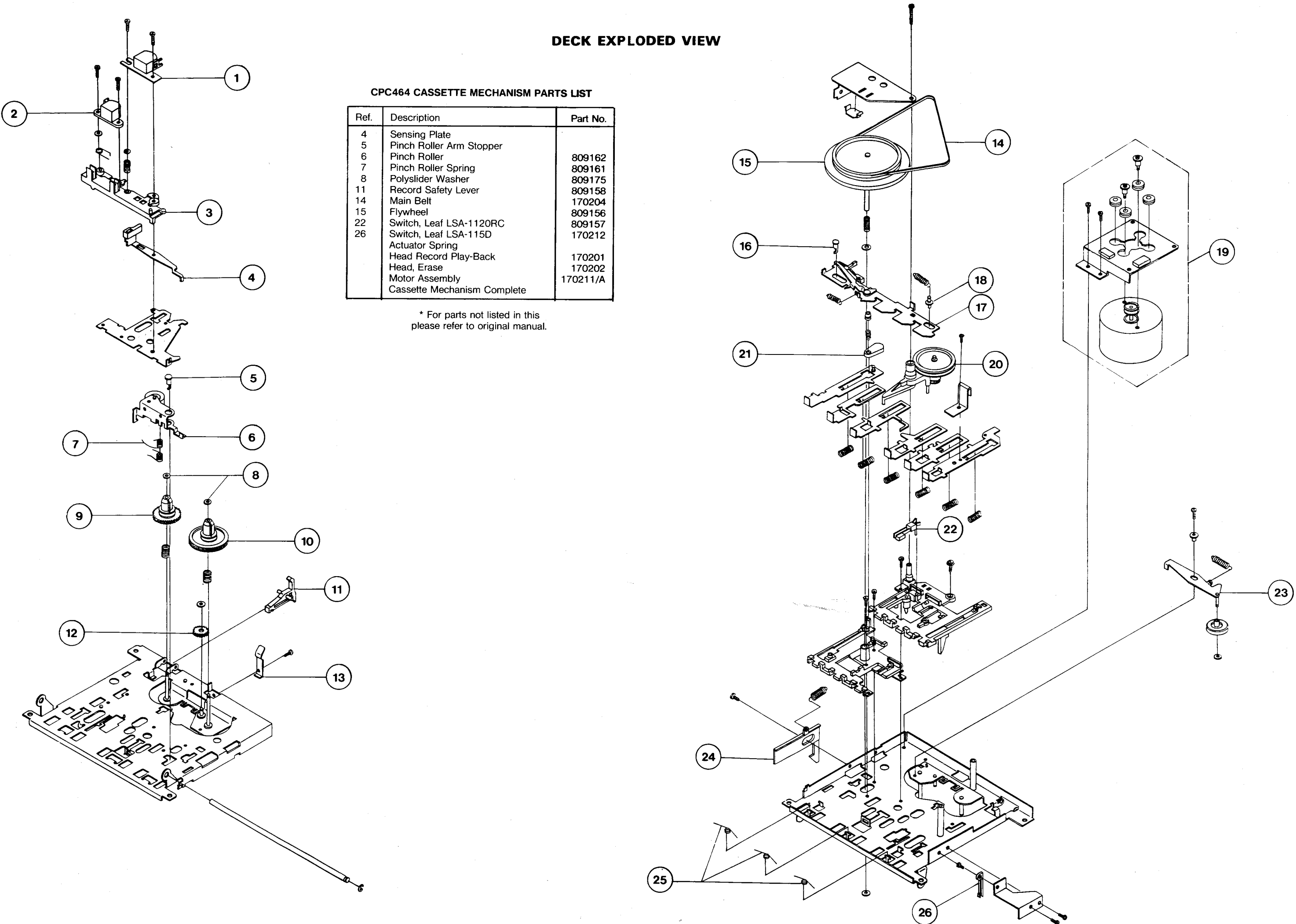
Ref. No.	Description	Part No.
IC's		
IC101	IC DN74LS145	170101
IC102	IC AY-3-8912	40001
IC103	IC Amstrad 40009	170102
IC104, 105, 109, 113	IC DN74LS153	170103
IC106	IC DN74LS273	170104
IC107	IC TMP-8255AP	170105
IC108	IC HD6845SP	170106
IC110	IC DN74LS132	170107
IC111	IC Z8400APS	40080
IC112	IC DN74LS32	40013
IC114	IC DN74LS373	170108
IC115	IC DN74LS244	170109
IC116	IC AMS40010	40010
IC117-124	IC KM4164B-15	170110
IC125	IC TC74HCU04AP	40008/A
IC301	IC LA4140	170111
IC302	IC LA6324	170112
Transistors		
Q101	TR KTC2120Y	170113
Q102, 301	TR KTC1815-T	170447
Diodes		
D101	D 1S2472T-77	170115
D301	D 1N4002	400111
D302	LED	170116
Ref. No.	Description	Part No.
Coils		
L301	Coil 82μH	170117
Crystals		
X101	Crystal HC-49/U	170125
Switches		
SW301	Switch, Slide	170122-A
SW302	Switch, Slide	170002
SW303	Switch, Key Board	170007-C
Variable Resistor		
VR301	VR Rotary 20kΩ	170003
Miscellaneous		
R326	Resistor Fuse 4.7Ω/¼W	170130
NR101	Resistor Network 2.2kΩ x 6	170131
SP301	Speaker	170124
RY301	Relay	170123
Sockets		
J101	Jack DIN	170025
J102	Socket, D Sub 9 Pin	170023-2
J103	Jack 3.5	170022
J104	Jack DC	170024

DECK EXPLODED VIEW

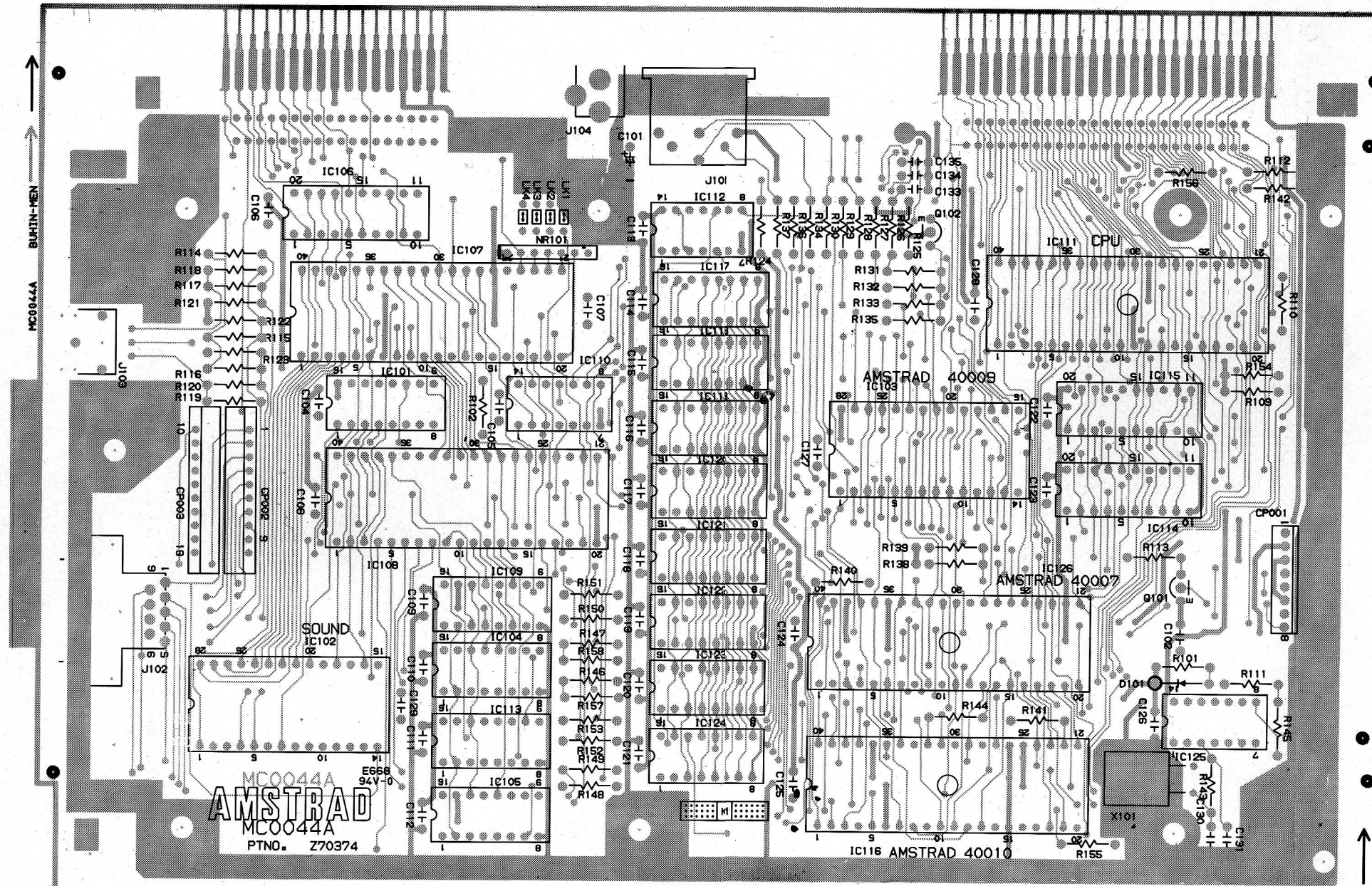
CPC464 CASSETTE MECHANISM PARTS LIST

Ref.	Description	Part No.
4	Sensing Plate	
5	Pinch Roller Arm Stopper	
6	Pinch Roller	809162
7	Pinch Roller Spring	809161
8	Polyslider Washer	809175
11	Record Safety Lever	809158
14	Main Belt	170204
15	Flywheel	809156
22	Switch, Leaf LSA-1120RC	809157
26	Switch, Leaf LSA-115D	170212
	Actuator Spring	
	Head Record Play-Back	170201
	Head, Erase	170202
	Motor Assembly	170211/A
	Cassette Mechanism Complete	

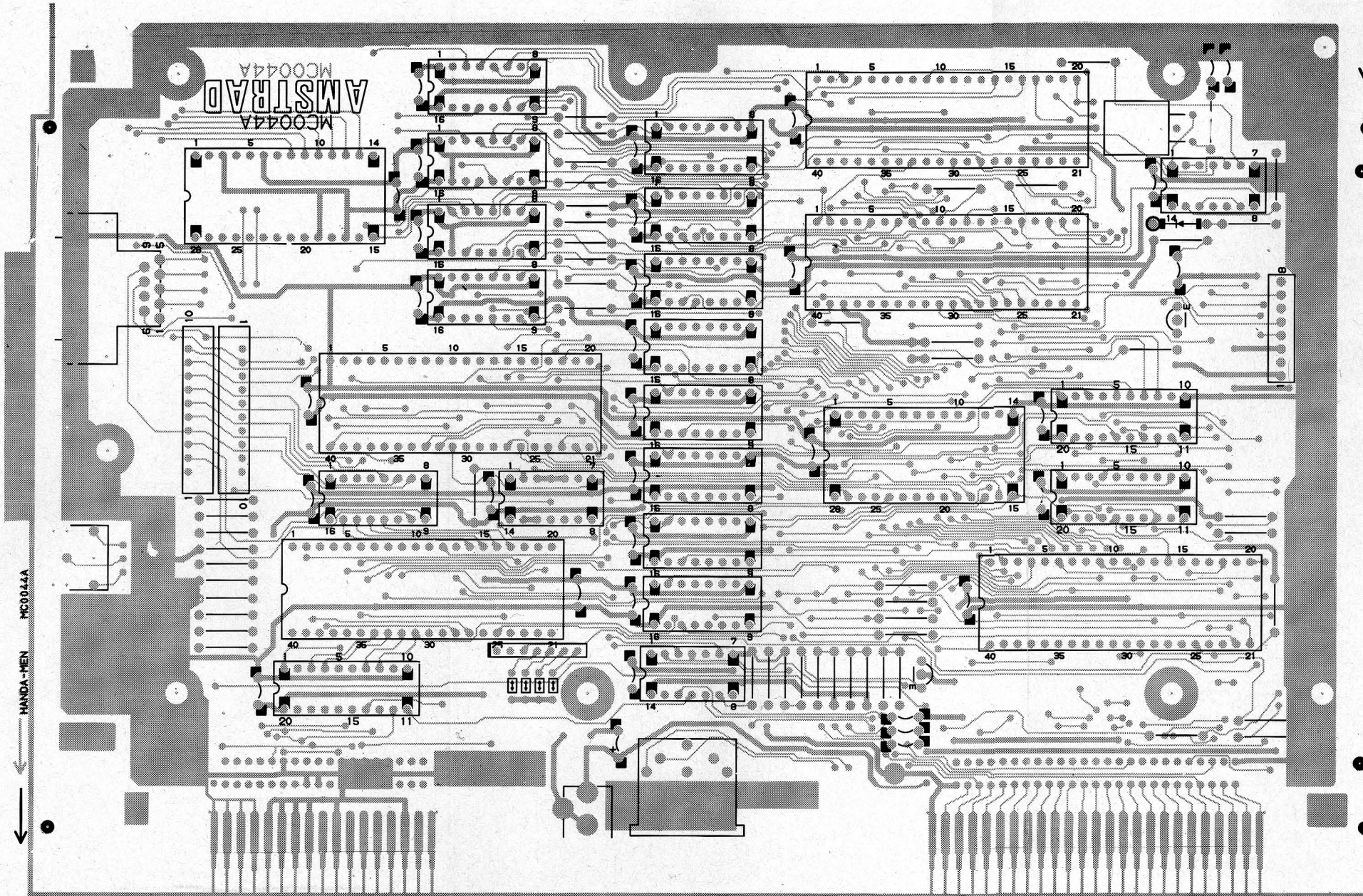
* For parts not listed in this
please refer to original manual.



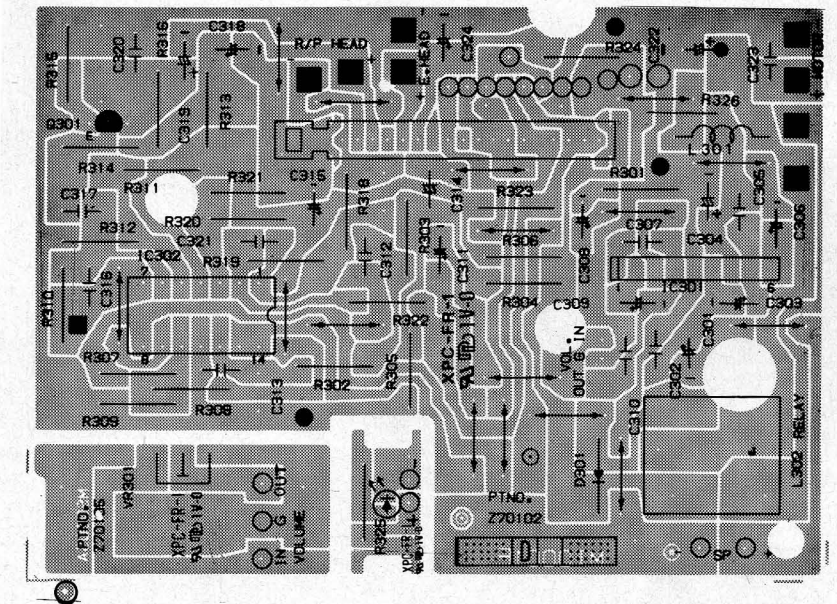
CPC464 CPU P.C.B. (Top View)



CPC464 CPU P.C.B. (Bottom View)





CPC464 TAPE P.C.B.



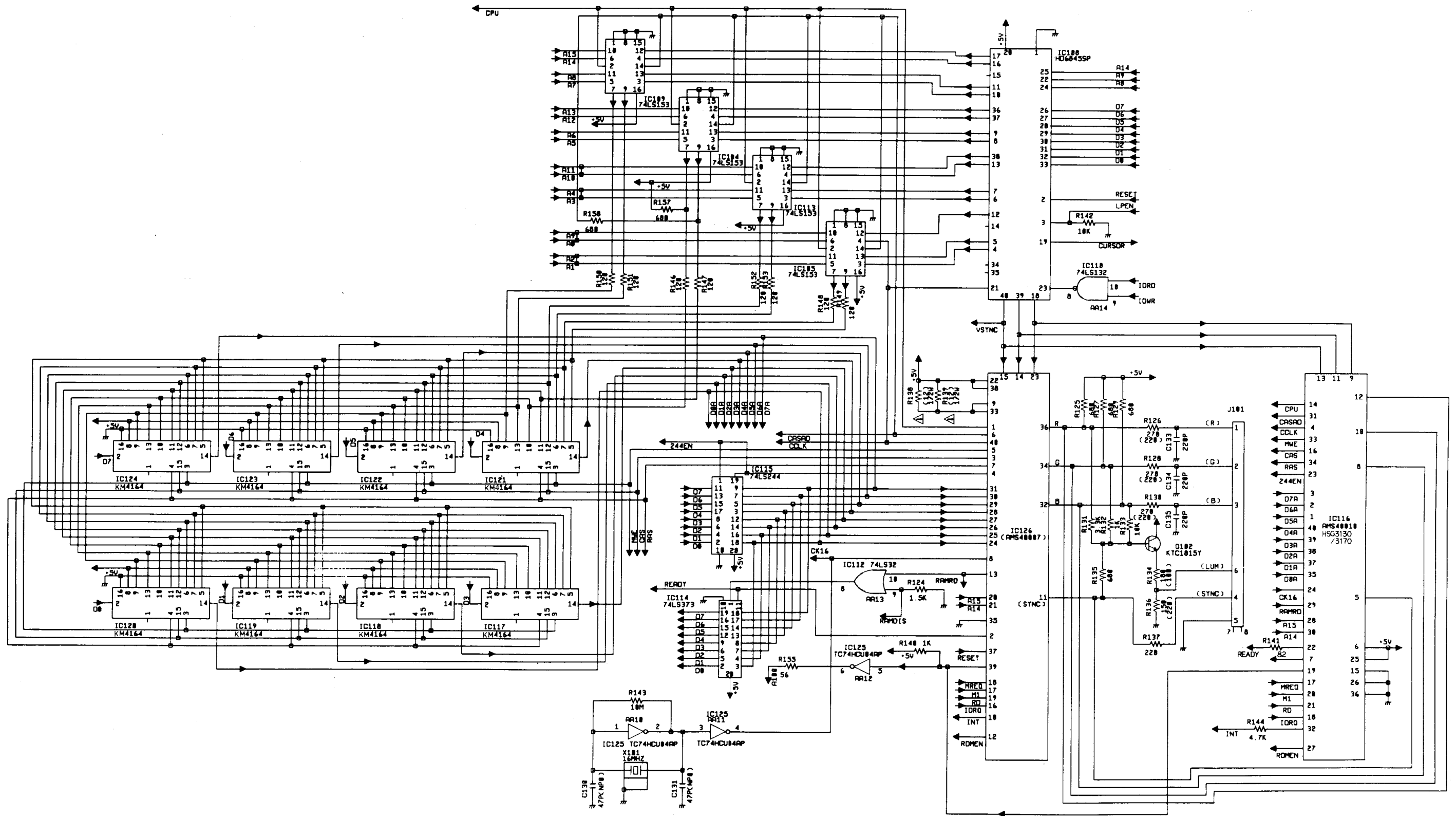
CPC464 CPU/PIO SECTION CHASSIS SCHEMATIC DIAGRAM



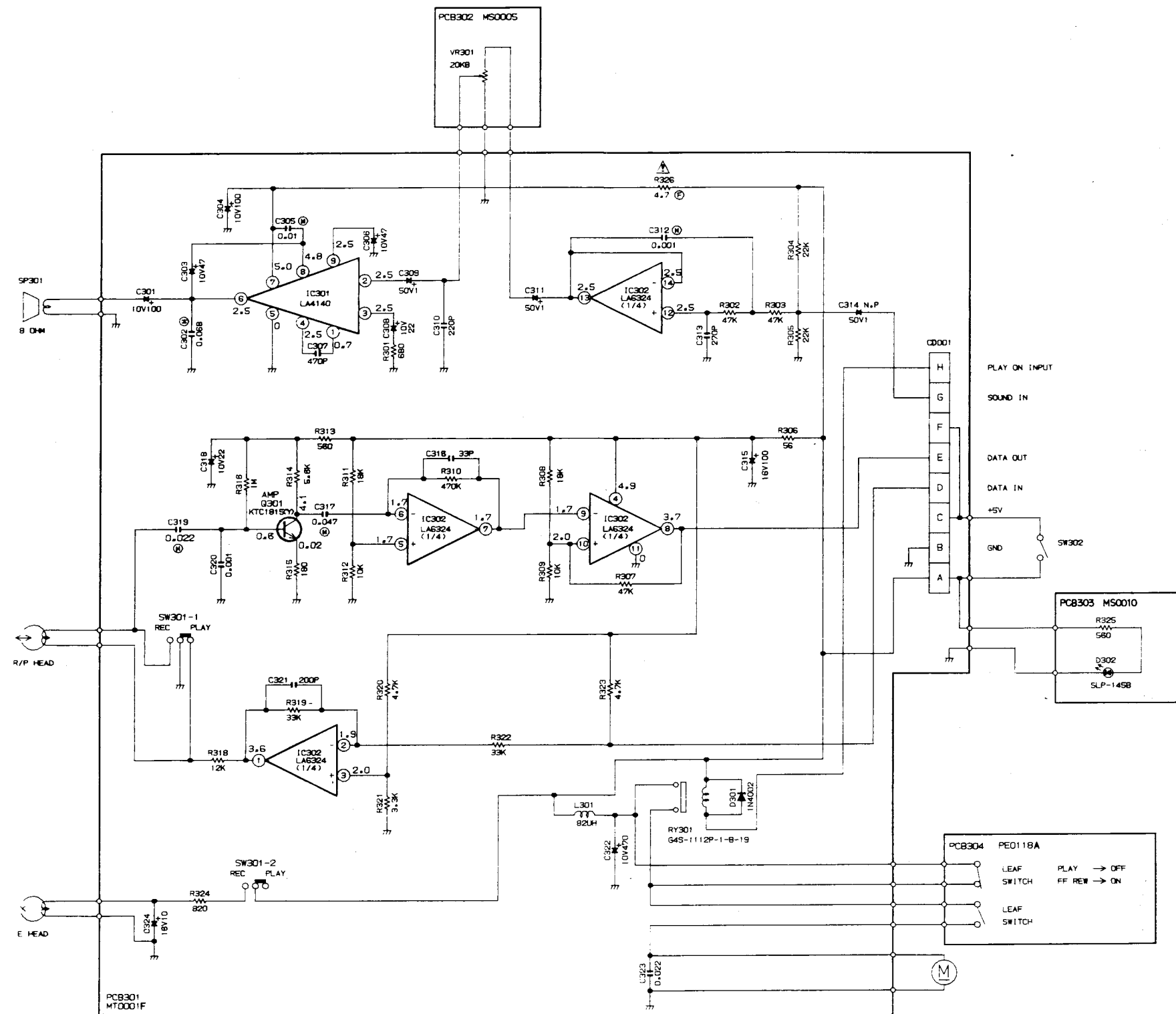
CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

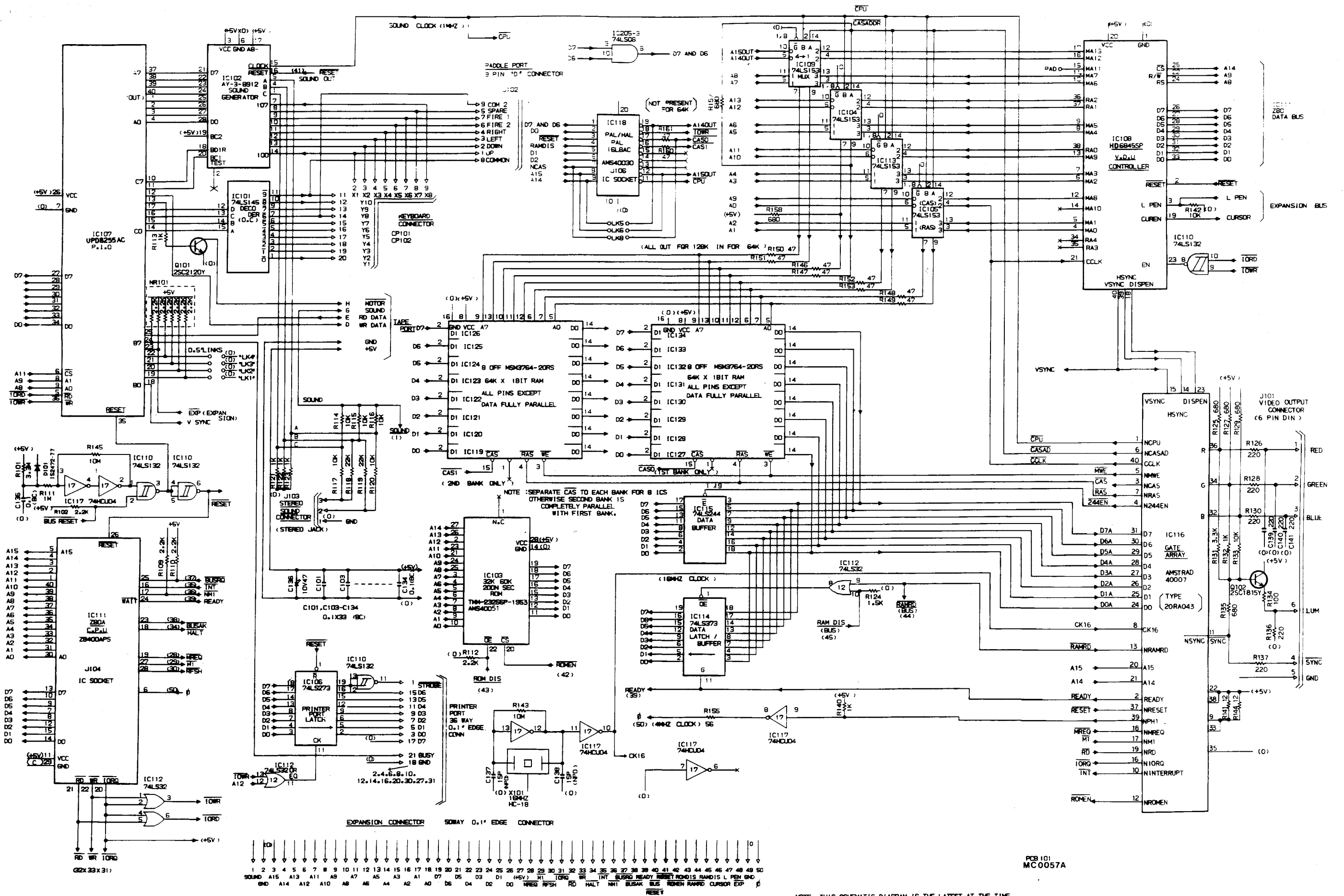
CPC464 RAM/CRTC/ULA SECTION CHASSIS SCHEMATIC DIAGRAM



CPC464 TAPE AMP SECTION CHASSIS SCHEMATIC DIAGRAM



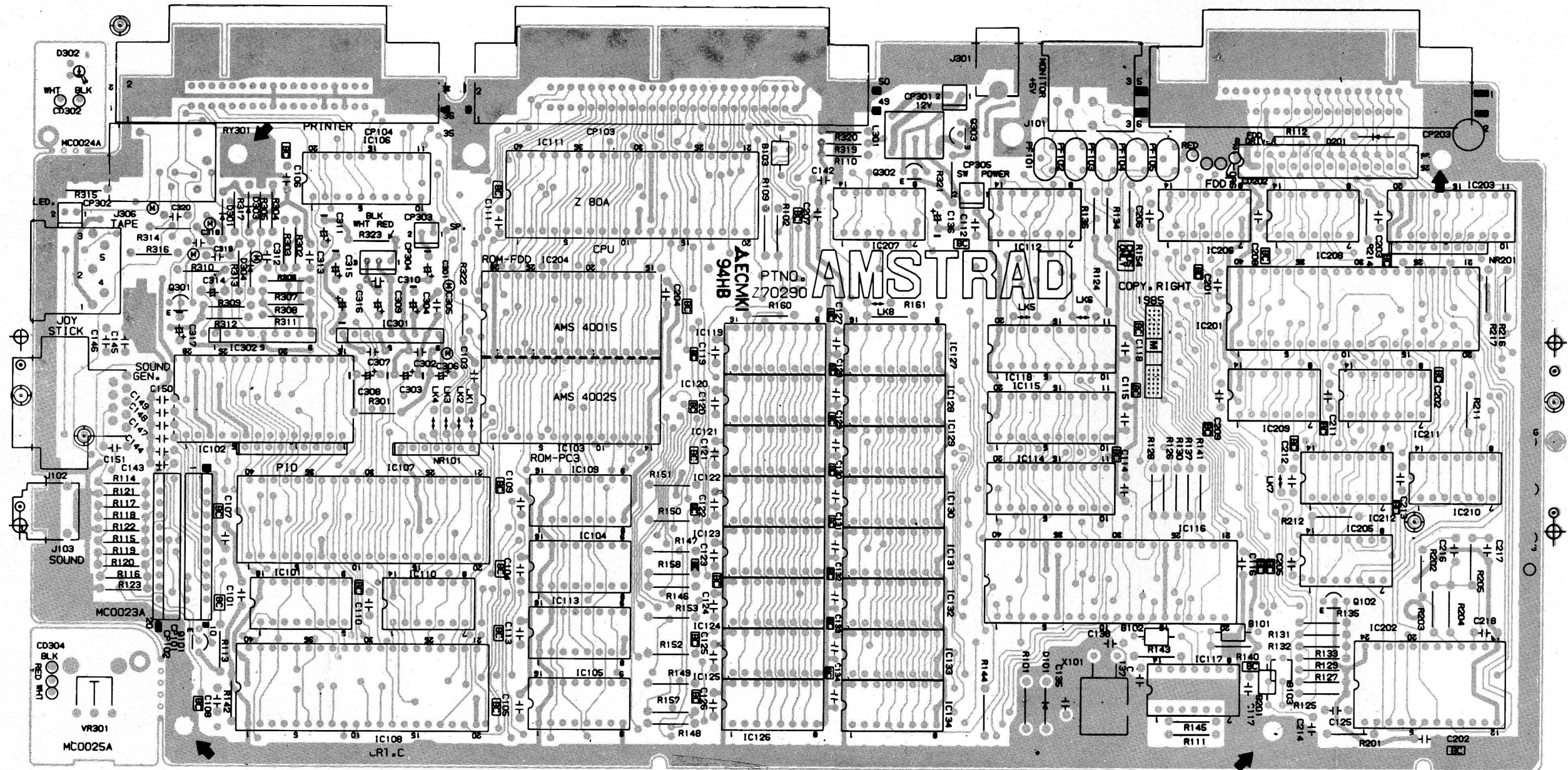
CPC6128 CHASSIS SCHEMATIC DIAGRAM



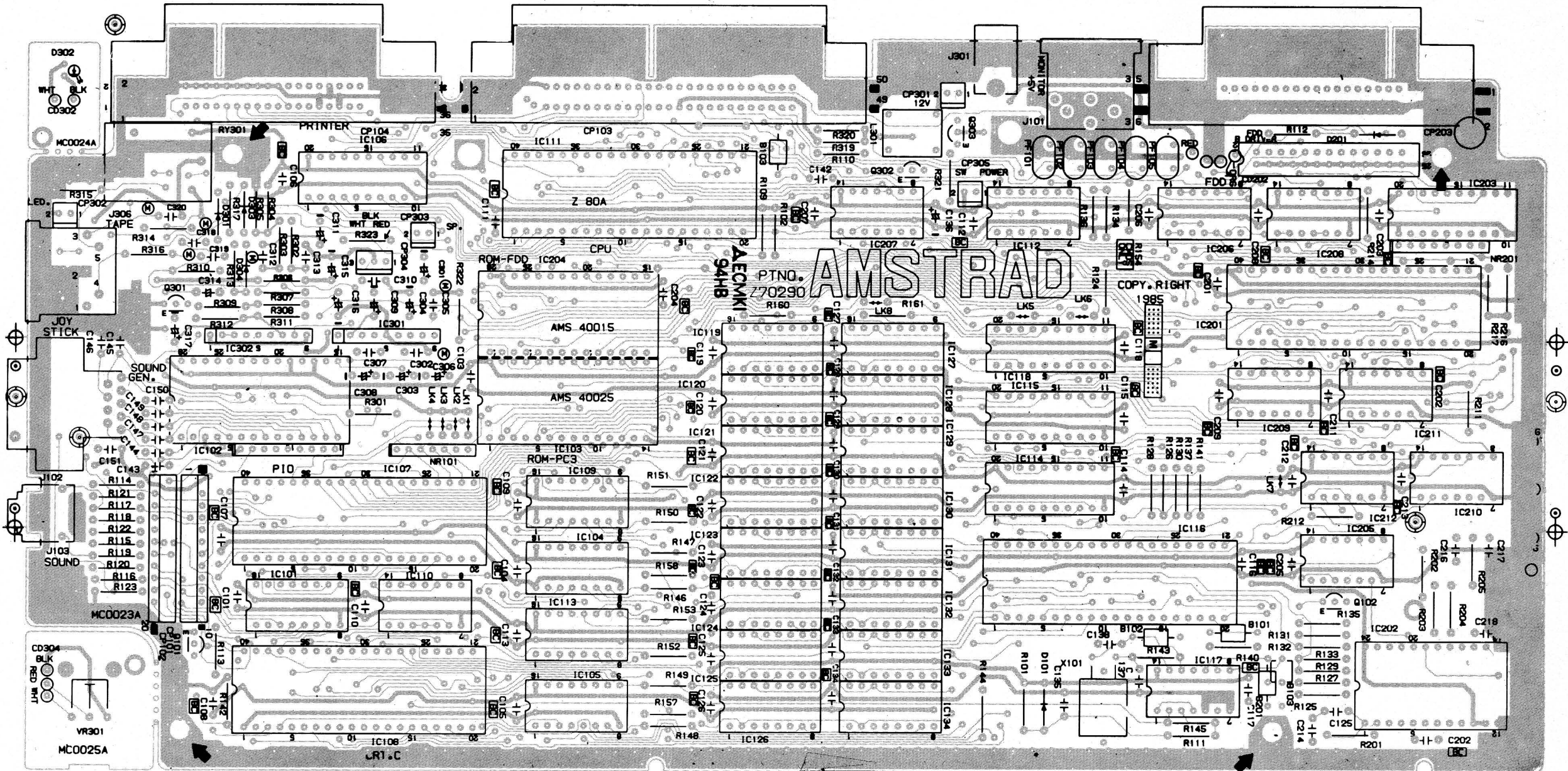
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

PCB 101
MC0057A





CPC6128 MAIN P.C.B. (Top View)



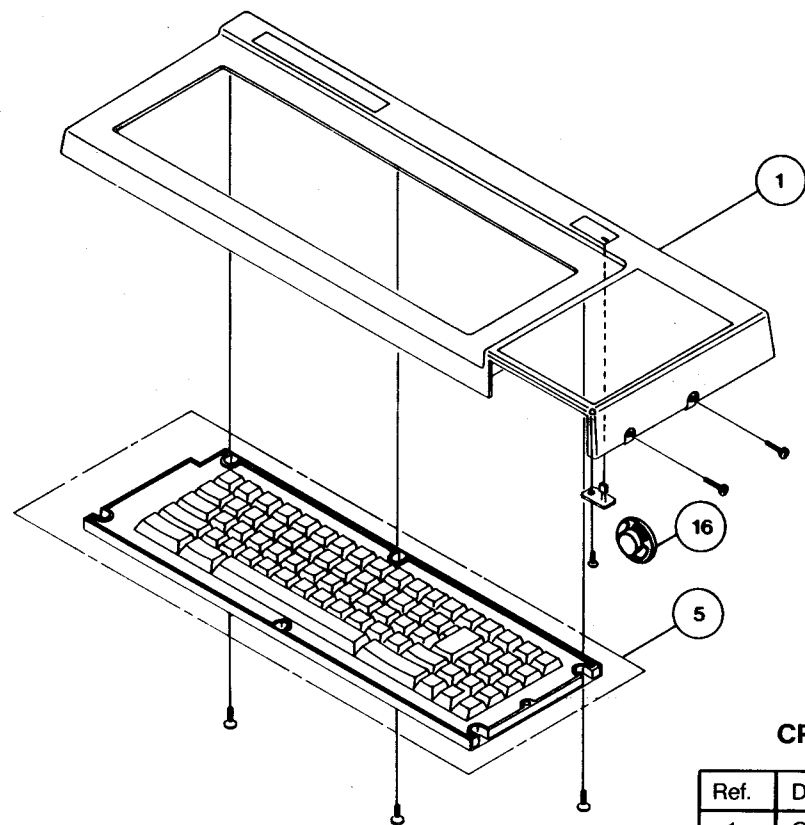
CPC6128 MAIN P.C.B. (Bottom View)



SYMBLE LIST

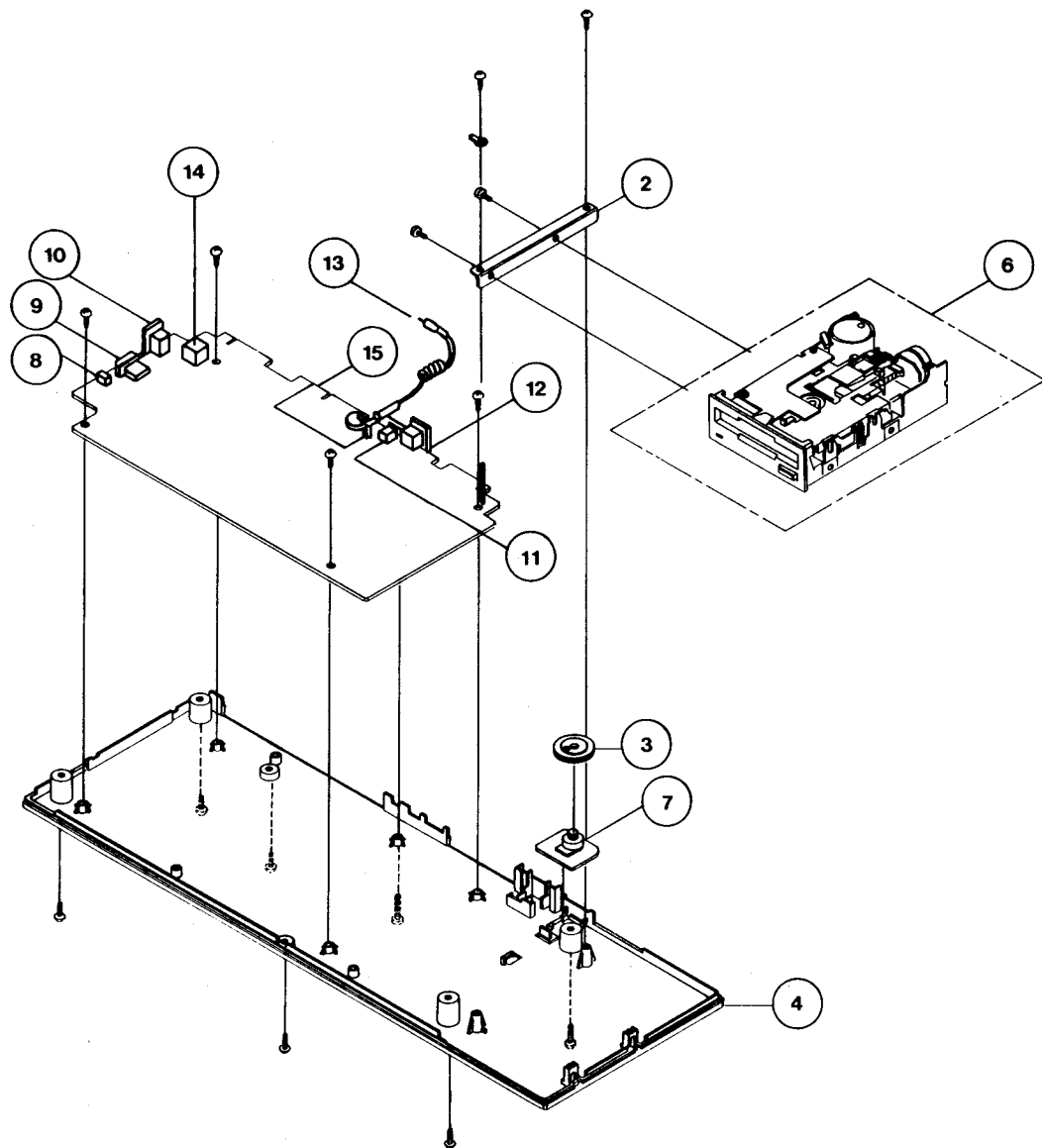
RESISTOR	
SEMI-FIXED RESISTOR	
CAPACITOR	
JUMPER	

CPC6128 SECTION



CPC6128/III CABINET PARTS LIST

Ref.	Description	Part No.
1	Cabinet, Top Assembly	170901
2	Frame, FDD	171007
3	Knob, Volume	170902
4	Cabinet, Bottom Assembly	170903



CPC6128/III ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.
IC's		
IC101	IC Amstrad 40226	40226
IC102	IC TMP-8255AP	170105
IC103	IC AY-3-8912	40001
IC104	IC DN74LS145	170101
IC105	IC Z8400APS	40080
IC106	IC DN74LS174	171387
IC107	IC DN74LS175	176085
IC108	IC Amstrad 40025	40025
IC109-124	IC KM4164B	170110
IC201	IC Z765APS	40018
IC202, 203	IC DN74LS38	40019
IC204	IC TC74HC14AP	171033
IC205	IC Amstrad 40015	40015
IC206	IC SED9420CAC	171034
IC301	IC LA6358S	170814
IC302	IC LA4140	170111

Transistors		
Q101, 102, 104, 201	TR KTC1815	170447
Q103	TR KTA950Y	170448

Diodes		
D101, 301, 302	D 1S2472T	170115
D303	D 10E1 FA8	170865
D304	LED SLP-155B	170866

Crystals		
X101	Crystal HC-49/U 16.00MHz	170908

Ref No.	Description	Part No.
Sockets		
J101	Jack DIN	170025
J102	Socket D Sub 9	170023
J103	Jack, RCA 3.5	170022
J301	Jack, DC	170024
J306	Jack, DIN	170850

Variable Resistors		
VR301	VR, Rotary 20kΩ	170807

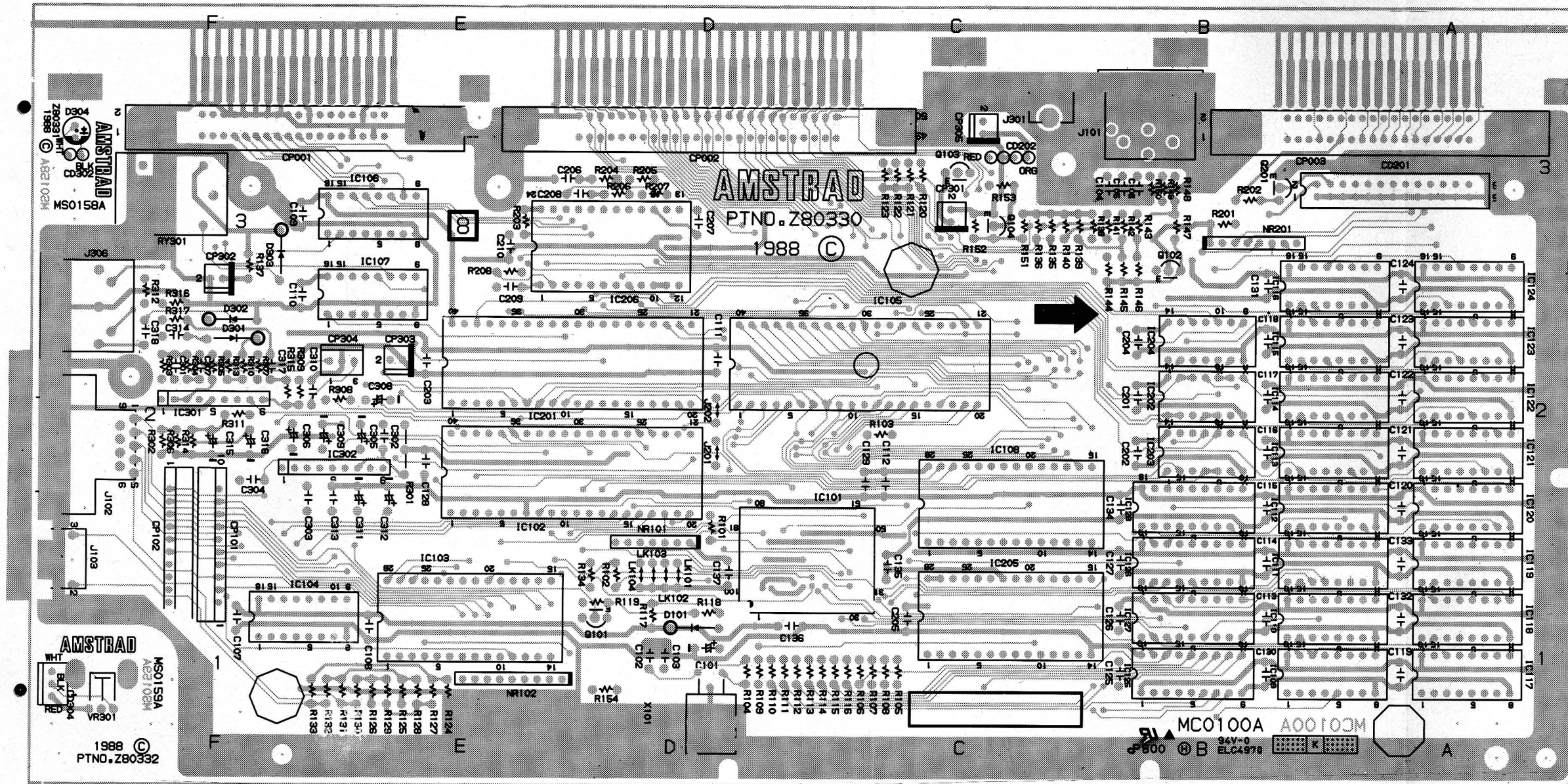
Switches		
SW101	Switch, Keyboard	170858
SW301	Switch, Slide	170906

Fuses		
R301	Fuse 4.7Ω	170866

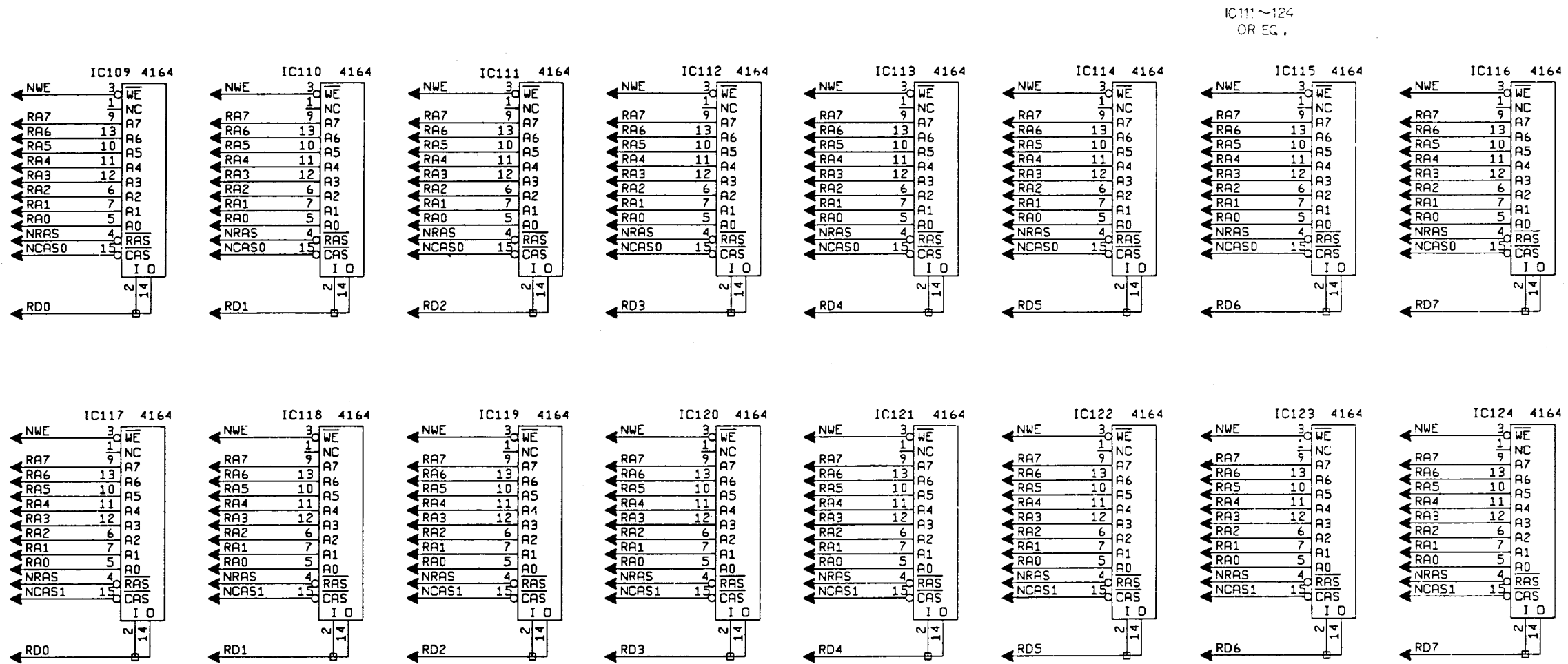
Miscellaneous		
FDD201	Floppy Disc Drive EME-156V	190005
RY301	Relay	170123
SP301	Speaker	170124
NR101	Resistor Network 2.2kΩ x 6	170131
NR102	Resistor Network 2.2kΩ x 8	170132
NR201	Resistor Network 680Ω x 6	170133



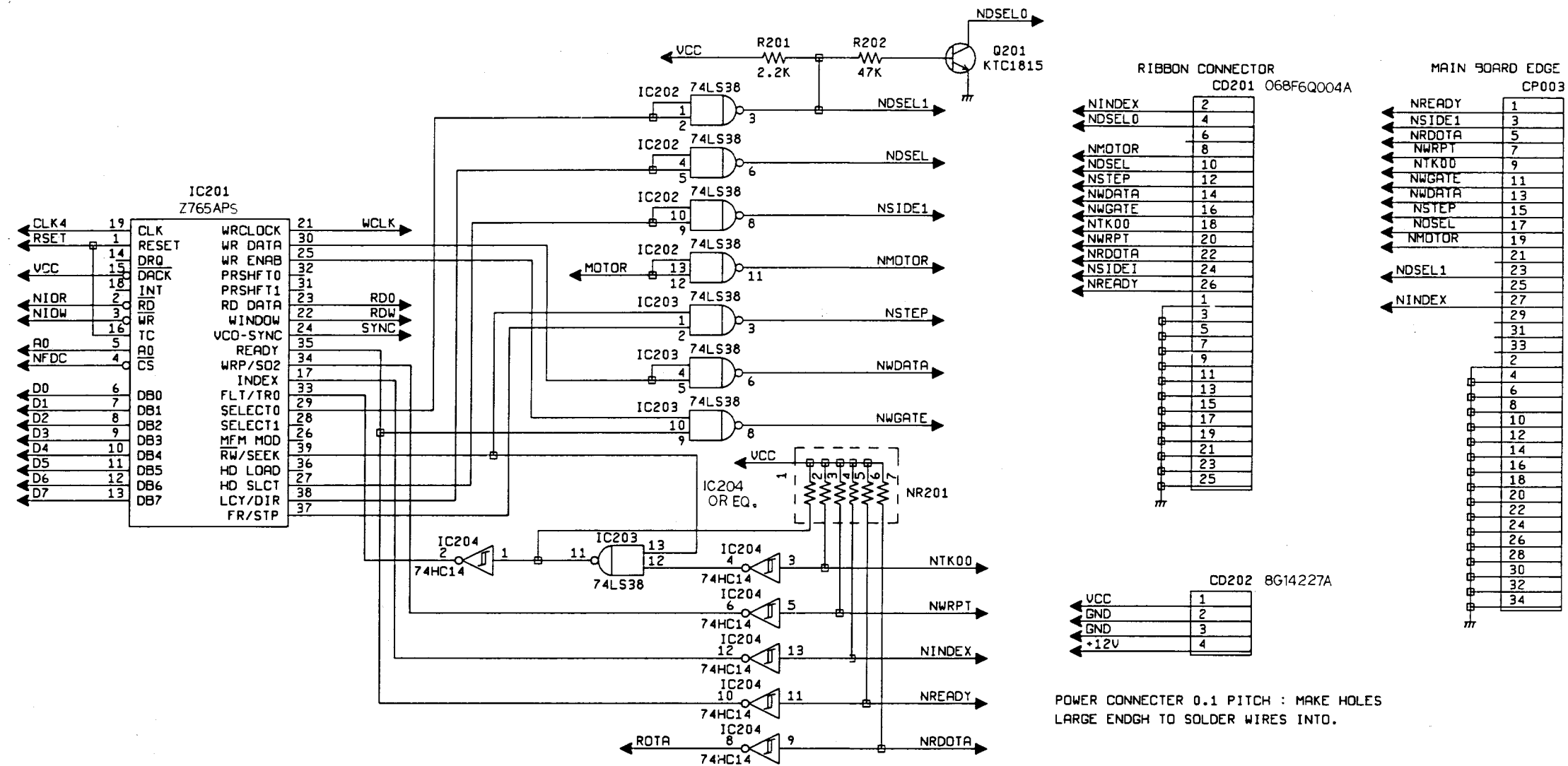
CPC6128 MAIN/LED/VOLUME P.C.B. (Bottom View)



CPC6128 RAM SECTION CHASSIS SCHEMATIC DIAGRAM

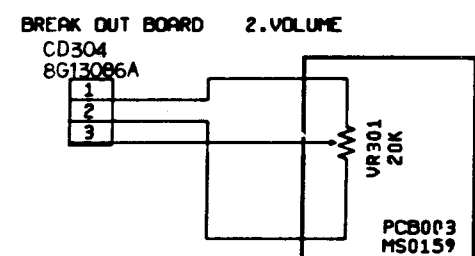
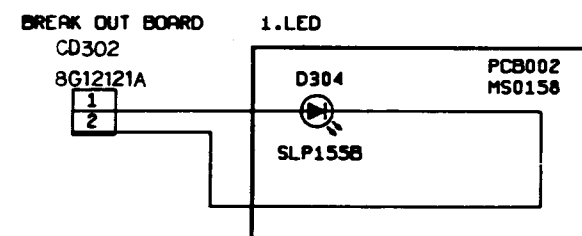
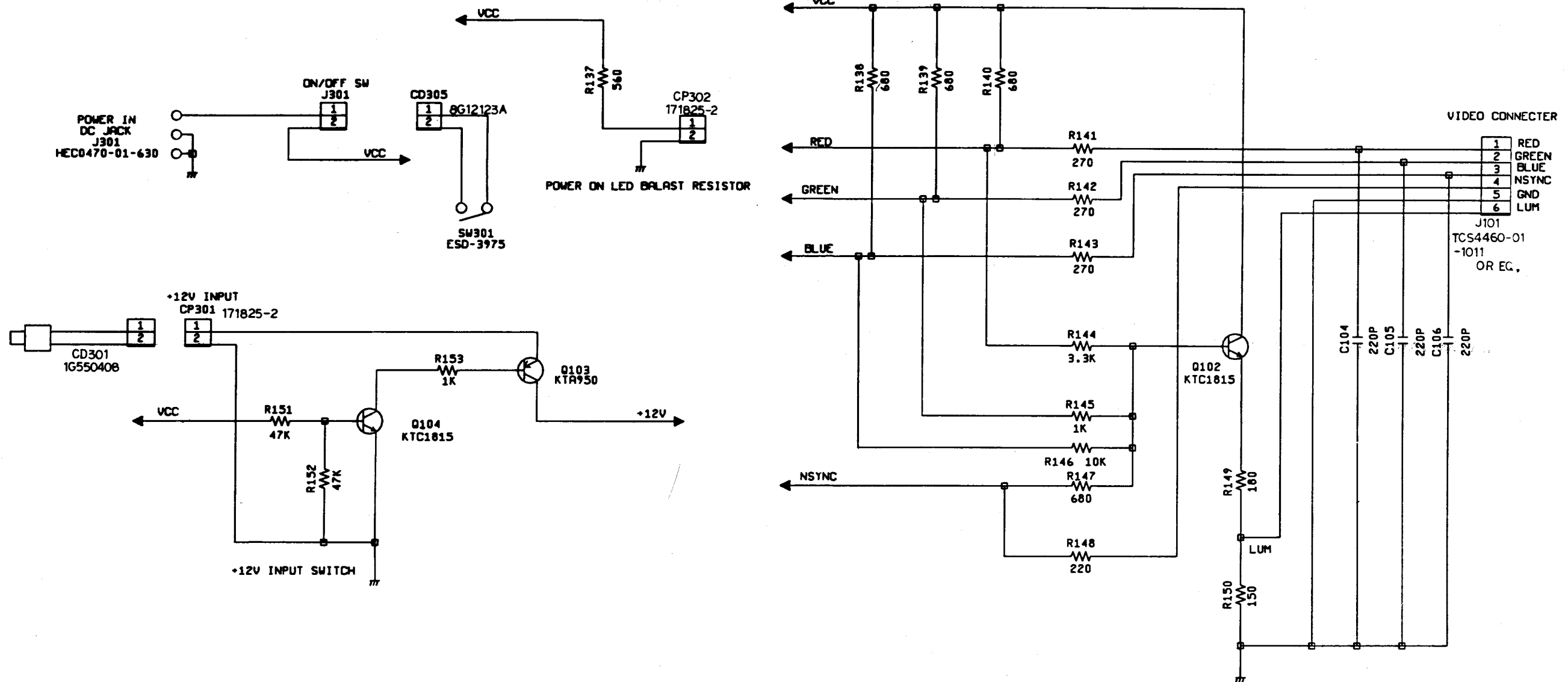


CPC6128 CPU SECTION CHASSIS SCHEMATIC DIAGRAM

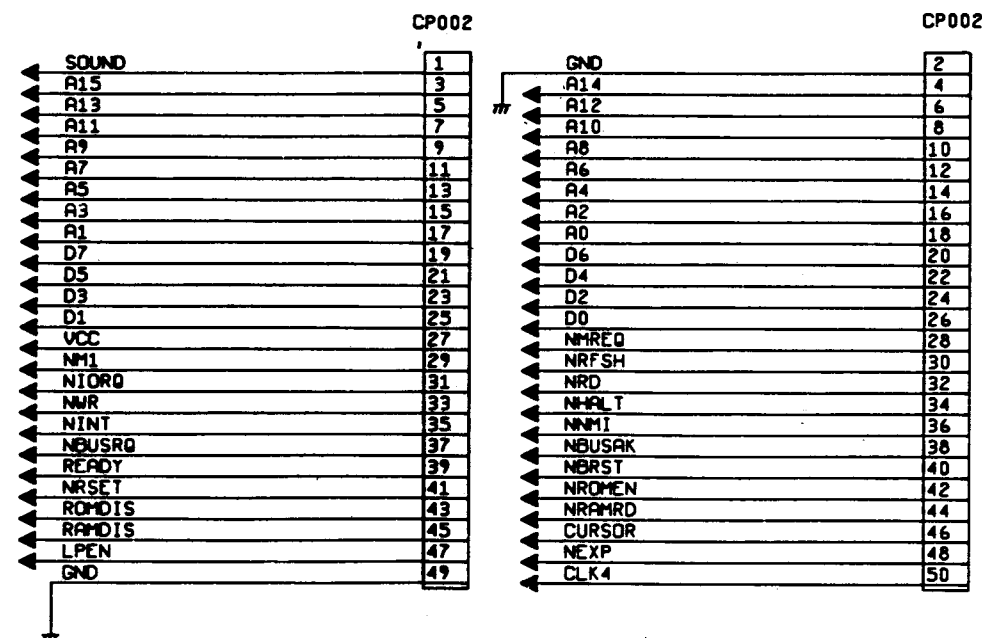


POWER CONNECTER 0.1 PITCH : MAKE HOLES
LARGE ENOUGH TO SOLDER WIRES INTO.

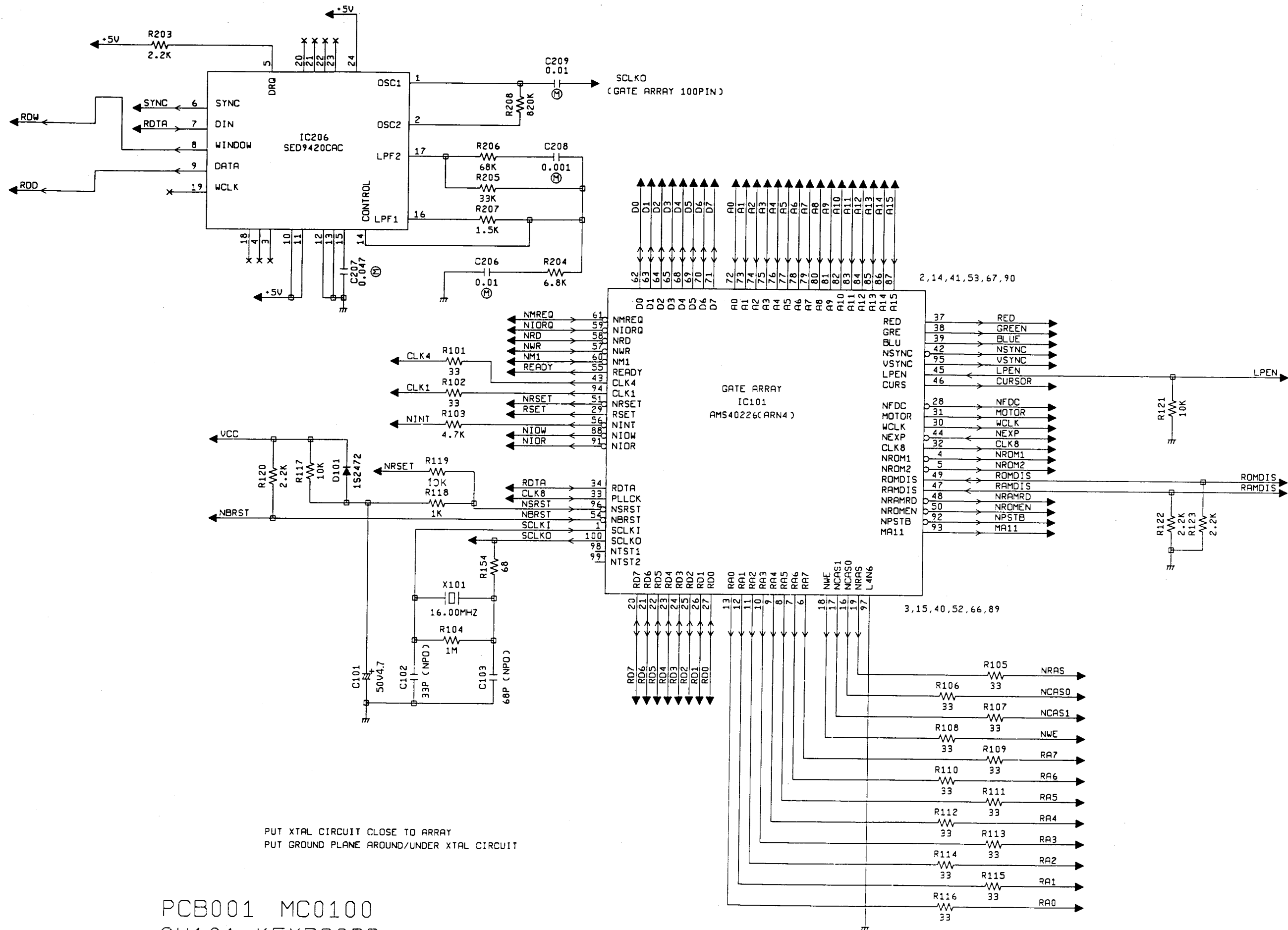
CPC6128 CHASSIS SCHEMATIC DIAGRAM



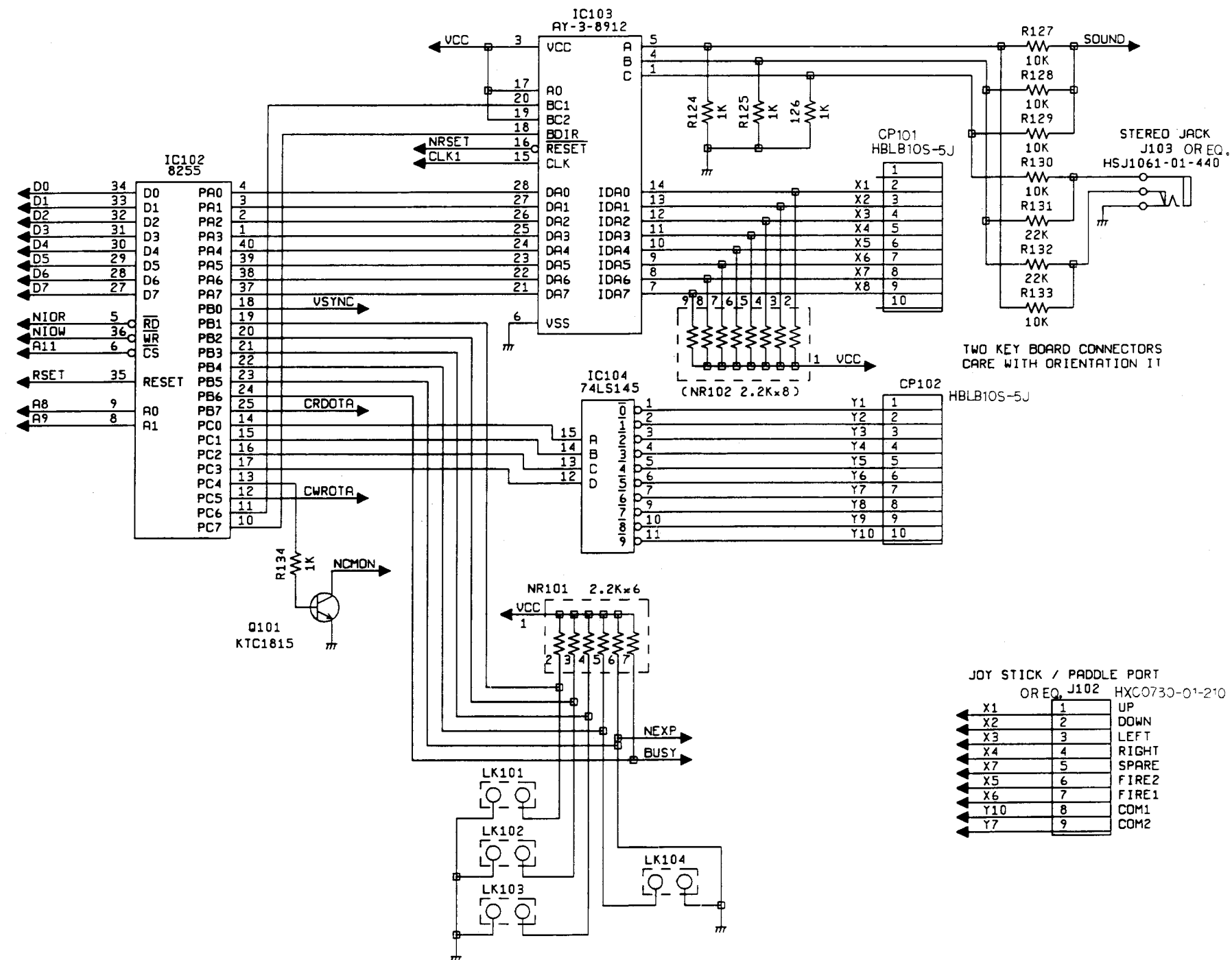
EXPANSION CONNECTOR. PCB EDGE



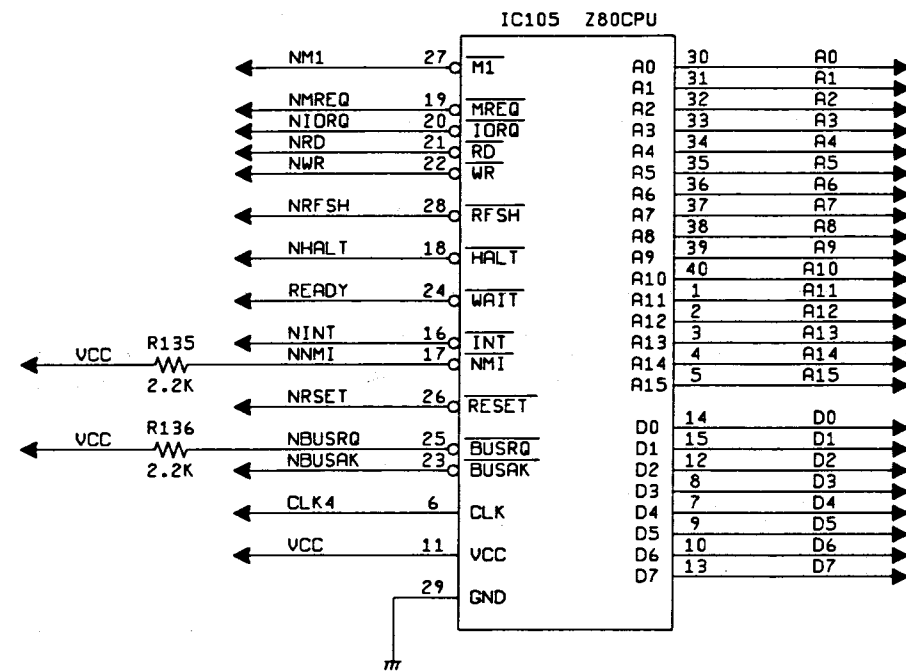
CPC6128 ULA/DS SECTION CHASSIS SCHEMATIC DIAGRAM



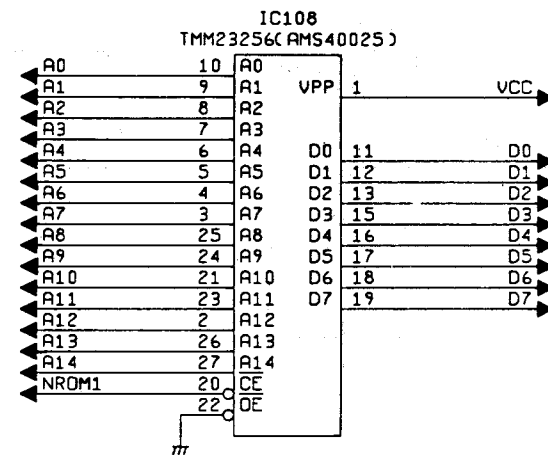
CPC6128 PIO/SOUND SECTION CHASSIS SCHEMATIC DIAGRAM



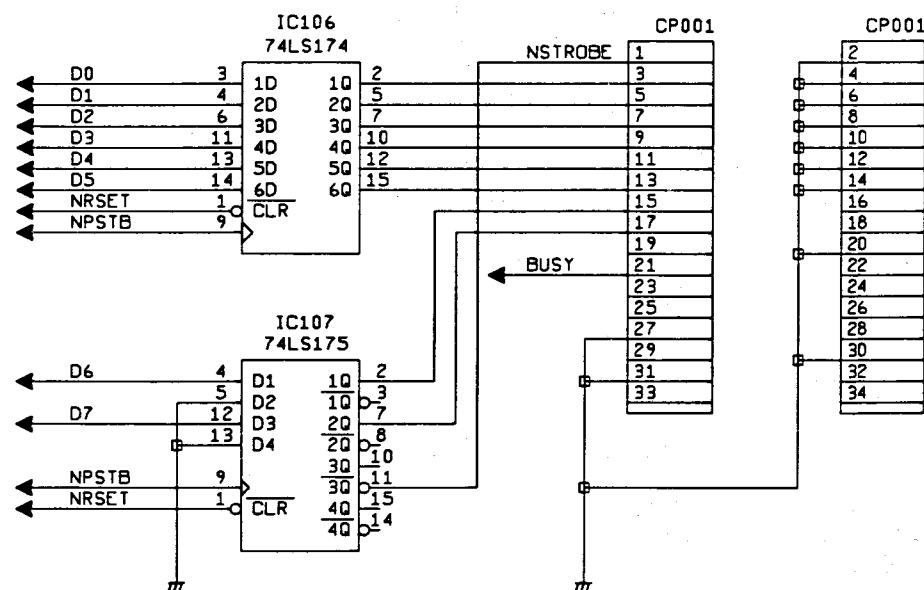
CPC6128 CPU/ROM SECTION CHASSIS SCHEMATIC DIAGRAM



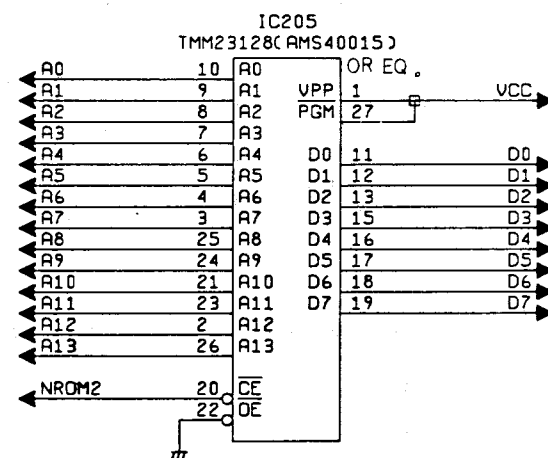
SYSTEM ROM APPEARS AT TWO ADDRESSES
0000-3FFF AND D000-FFFF



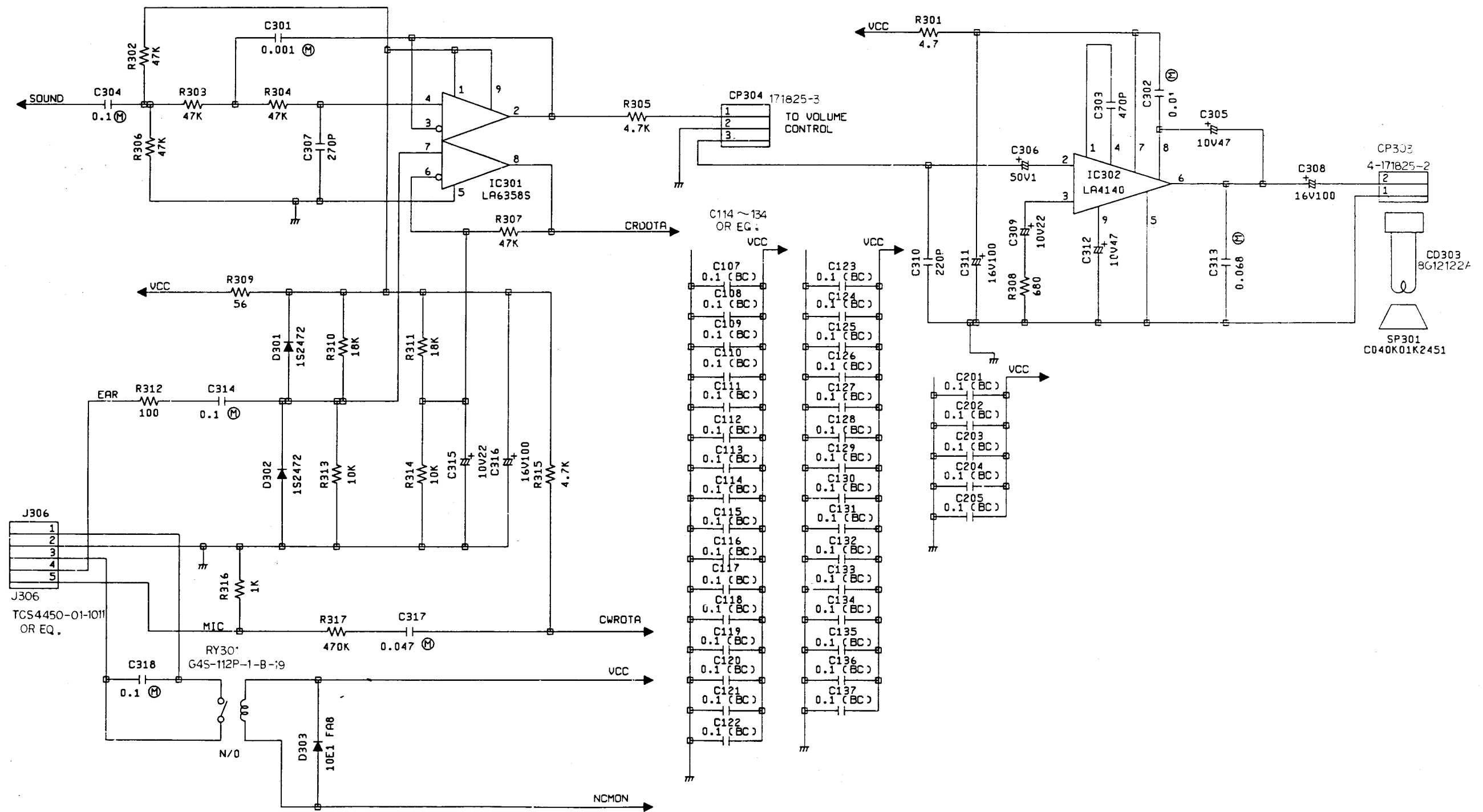
PRINTER PORT
PCB EDGE CONNECTOR

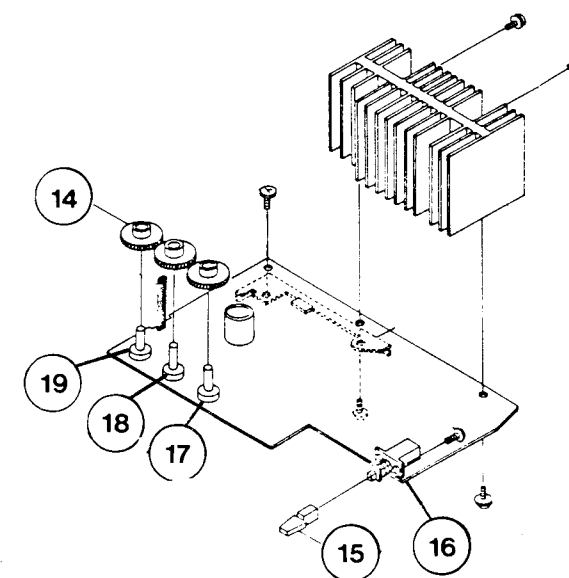
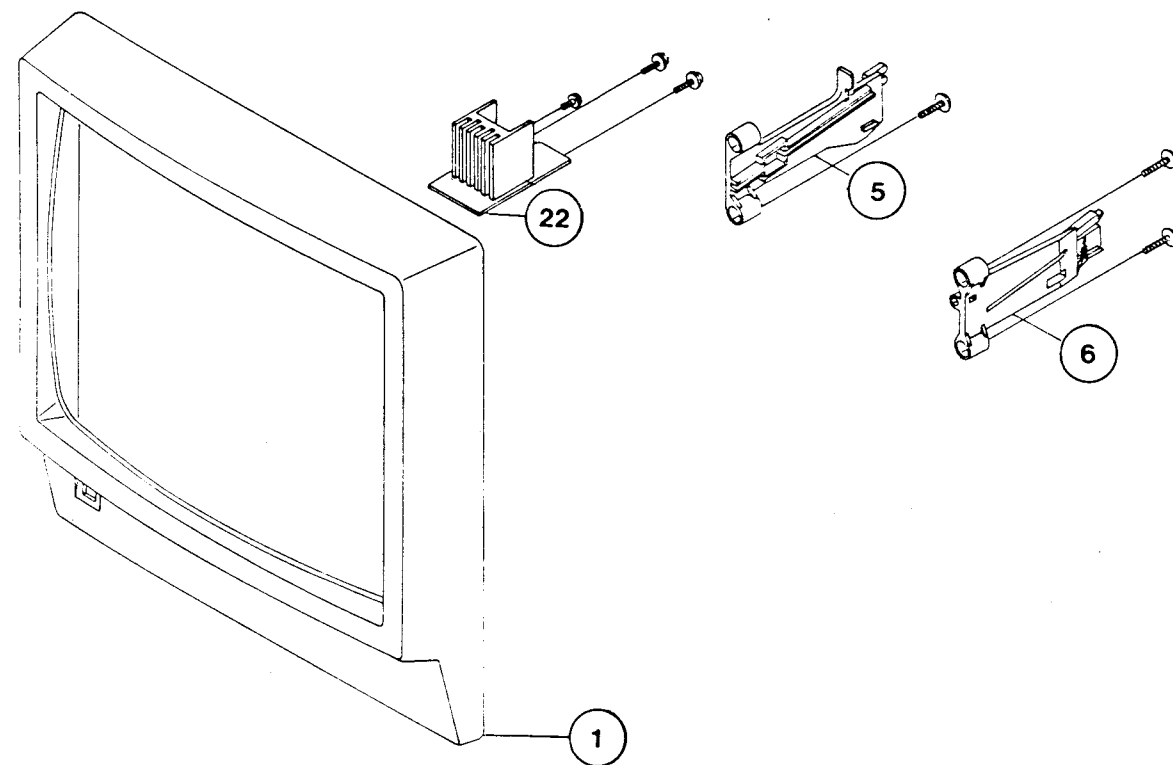
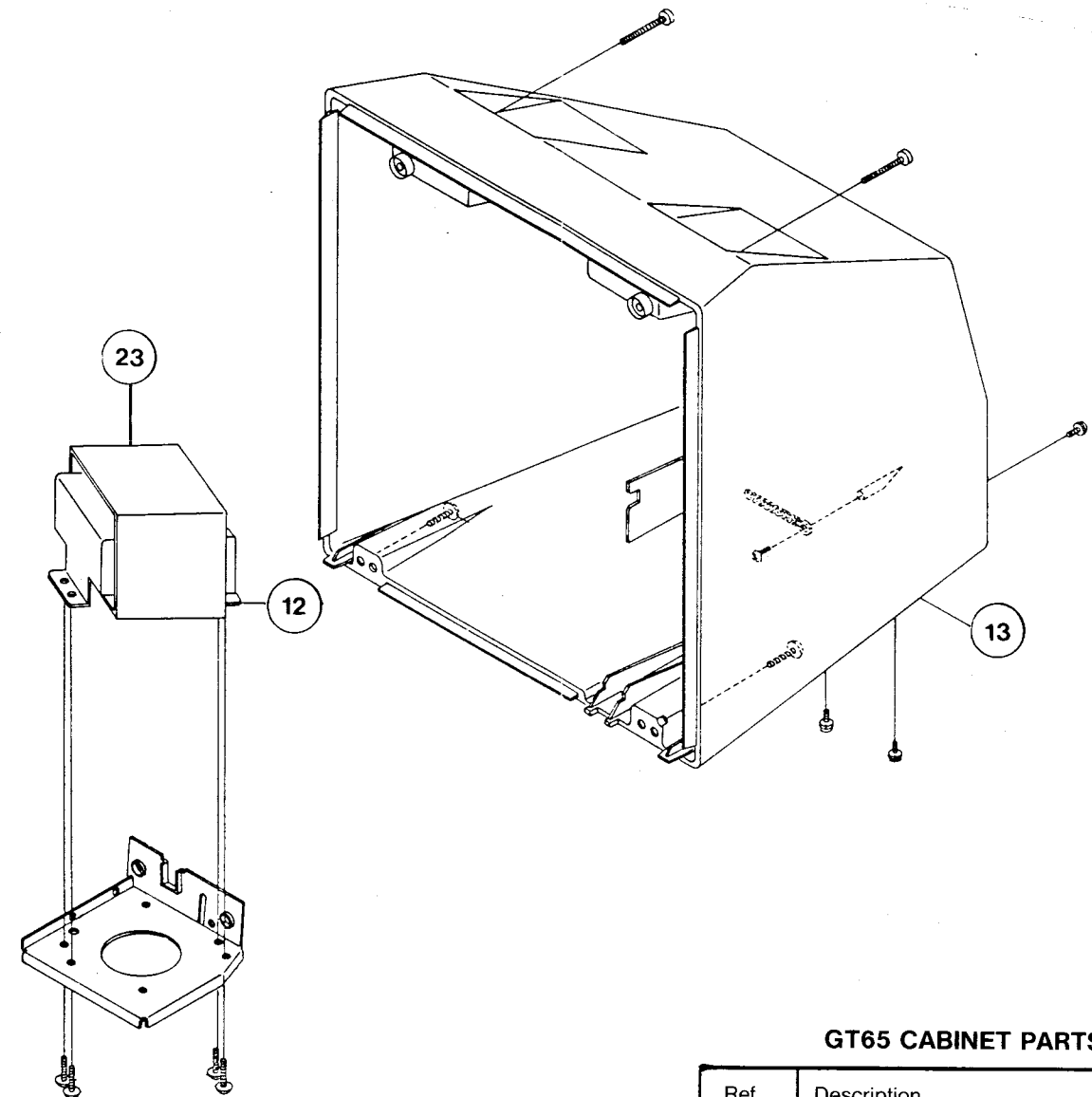
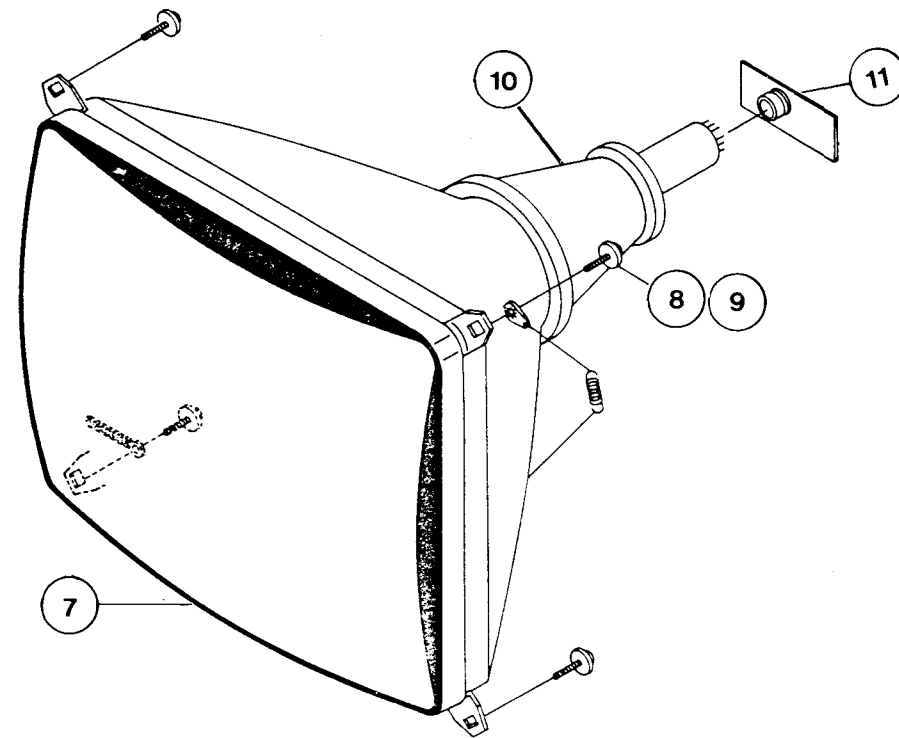


FLOPY DISC CONTROLLER ROM



CPC6128 TAPE/SOUND SECTION CHASSIS SCHEMATIC DIAGRAM





GT65 CABINET PARTS LIST

Ref.	Description	Part No.
1	Front Cabinet	170150
2	Cable Clamp	170502
5	Bracket PCB (L)	170153
6	Bracket PCB (R)	170154
7	CRT Green	170507
8	Metal Washer CRT	170508
9	Fixing Screw CRT	170509
10	Deflection Yoke	170510
11	CRT Socket	170511
12	Power Transformer	S/170832
13	Rear Cabinet	170155
14	Control Knob	170514
15	Button Power	170515
16	On/Off Switch	170516
17	V. Hold Pot.	170833
18	Contrast Pot.	170518
19	Brightness Pot.	170519
20	D.C. Cord	170516
21	DIN Cord	170157
22	D.C. Jack	170834
23	u Metal Shield	170512/SH
Miscellaneous		
FB701	Transformer Flyback 0420120041	170158
TH702	Thermistor SDT100	170159

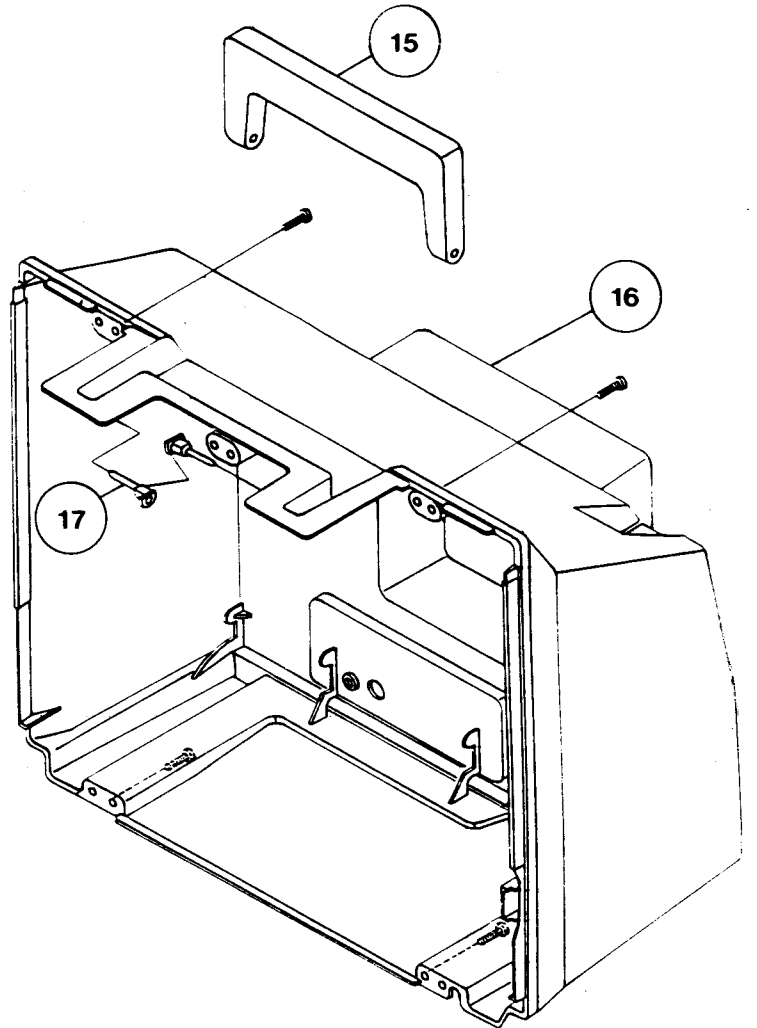
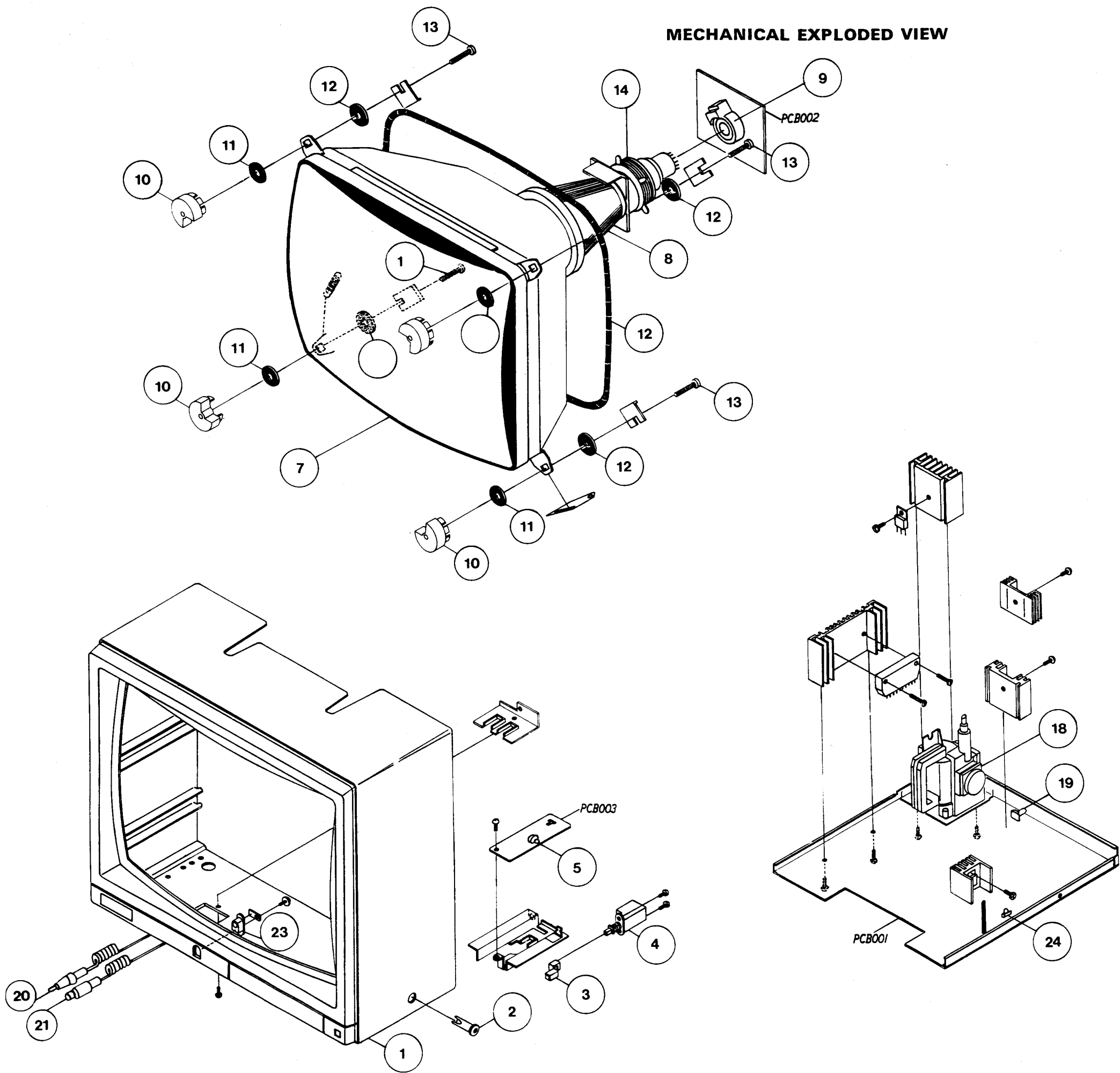
Ref. No.	Description	Part No.
IC's		
IC401	IC LA7800	1400106
IC402	IC LA7830	170444
IC501	IC STK-7308	170445
IC502	IC L78MG	170446
IC503	IC UPC78M12	1422278
Transistors		
Q401, 402, 506	TR KTC1815-T	170447
Q403	TR 2SA950Y	170448
Q404	TR 2SC2271	170449
Q405	TR 2SD1397	170450
Q501	TR 2SD1207	170451
Q502	TR 2SD880(Y)	170452
Q503, 505	TR KTA1015Y	170453
Q504	TR 2SC2120Y	170113
Q801-803	TR 2SC3417	170454
Diodes		
D401, 410, 411	D IS2472T-77	170455
D402	DZ GZA11 Y BT	1400124
D405, 407, 408	D DFD05G	170456
D406	D BB4-FC	1422116
D501-504	D 20E10	170848
D505, 507	DZ RD3.6FB	170458
D506, 508	D DFC10E-KB4	1422115
D509	D RGP-30J-5001L	170459
D510	D SR-2M Avalanch	1400122
D511, 512	D RGP30G-5001L	170459
D901-903	DZ GZA6.2 Y BT	1422114
Coils		
L401	Coil Linearity 21000002	170134
L501	Filter Line Across FK0b160MH14	1400130
L502	Coil Degauss 8D140013	170842
L801	Coil Choke 100μH	1400148
T401	Trans Hori. Drive 305Y001	170463
T501	Trans Switching 8142006	170845
Switches		
SW401	Switch, Slide SS-009-7H	900101
SW501	Switch, Push ESB-90197S	*170306
Sockets		
J501	Jack HEC0630-01-010	170844
J801	CRT Socket HPS0171	170843-2
Variable Resistors		
VR401	VR Rot 500Ω 25B52	170315
VR402, 404	VR SF 5kΩ	1400227
VR403	VR SF 5kΩ VOAA00B53	170135
VR405	VR Rot 20kΩ K121K0Z21	1400035
VR406	VR 1kΩ A00B13	170466
VR801	VR SF 5kΩ Red	1400197
VR802	VR SF 5kΩ Green	1400198
VR803	VR SF 5kΩ Blue	1400199
VR804	VR SF 5kΩ Red	1400200
VR805	VR SF 5kΩ Blue	1400201
Fuses		
F501	Fuse FST 2A(T) 250V	1400253

Description	Ref. No.	Part No.
Metal Oxide Resistors		
0.27Ω/2W	R513	171071
1Ω/3W	R502	170416
10Ω/¼W	R511	10008
15Ω/2W	R512	170410
33Ω/2W	R509	170411
220Ω/2W	R433	809229
1kΩ/3W	R503	176557
1.8kΩ/2W	R427	170137
3.9kΩ/1W	R505	170407
15kΩ/1W	R805, 808, 812	170408
Fuse Resistors		
0.82Ω/1W	R437	1422141
3.3Ω/½W	R438	170138
8.2Ω/¼W	R444	170404
33Ω/½W	R520	175065
Cement Resistors		
15Ω/7W	R436	170417
Electrolytic Capacitors		
1μF/250V	C506	1422152
22μF/250V	C430	170419
100μF/35V	C425	1422157
100μF/50V	C512	171089
100μF/400V	C505	170423
220μF/35V	C507	20035
220μF/160V	C515	170851
470μF/16V	C405	176358
470μF/25V	C519	20044
470μF/35V	C402, 522	1422262
1000μF/10V	C518	130105
2200μF/25V	C424	170425
Plastic Capacitors		
0.0056μF	C415	174818
Metal Polypropylene Capacitors		
0.1μF/250V	C501	171609
0.82μF/200V	C429	170435
0.82μF/1.6kV	C431	170139
Polyester Capacitors		
0.15μF/100V	C422	170140
Ceramic Capacitors		
2200pF/4kV	C513	170430
0.001μF/2kV	C511, 801	1422147
0.0015μF/2kV	C432, 510, 514	170432
0.0022μF/2kV	C502-504	140023
Ref. No.	Description	Part No.
Miscellaneous		
FB401	Transformer Flyback 3714009	170468
TH501	Degauss Element	1400195
V001	Tube Cathode Ray A34JLL70X10	170307-A
ICP501	ICP-N20	150442
ICP502	ICP-N38	170136
CD005	Cord DC	170316/A
CD007	Cord DIN	170317/A

CTM644 ALIGNMENT INSTRUCTIONS

STEP	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	Black and White Tracking.		Monitor Screen.	1. Turn R & B Drive Controls VR804 & VR805 fully counterclockwise. 2. Turn R, G & B Bias Controls VR801, 802, 803 fully counterclockwise. 3. Set Ser. Nor. Switch to Ser. position.	Monitor connected to CPC464.
2.	Black & White Tracking.		Monitor Screen. Monitor Oscilloscope.	1. Adjust 120V at the collector of Q802 with Brightness Control on the Oscilloscope. 2. Rotate the screen control to fully counterclockwise & bring it back to obtain a dim line of one prominent colour. 3. Rotate the other two colours till a dim white line is obtained. 4. Bring Ser. Nor. Switch to Nor. position.	Monitor connected to CPC464. If required, adjust the colour control.
3. If no satisfactory results repeat step 2.					
4.	Vertical Size.	Program the paper edge.	Monitor Screen.	Adjust VR406 to obtain paper edge to be 145mm.	Use non magnetic ruler.
5.	Focus Adjustment.	Program the paper edge.	Monitor Screen.	Adjust Focus Control on the Flyback Tx for maximum definition & details.	Brightness & Contrast controls set to normal viewing.
6.	5V Adjustment.	Switch on the Monitor.	A.V.O. Meter.	Connect A.V.O. across C518 & adjust VR501 to obtain 5V exactly.	
This adjustment (6) should not be disturbed under normal conditions.					
7.	Sub Brightness Control.	Switch on the Monitor.	A.V.O. Meter.	Connect A.V.O. to collector of Q802. Adjust VR402 to read 123V - 124V.	Keep Brightness Control to maximum position.
8.	Sub H. Hold & H. Hold Adjustment.	Switch on the Monitor.	Frequency Counter.	Rotate H. Hold fully counterclockwise. 1. Adjust VR404 to read 14500Hz. 2. Adjust VR403 to read 15625Hz.	Read the Meter across CRT Heater & Earth.

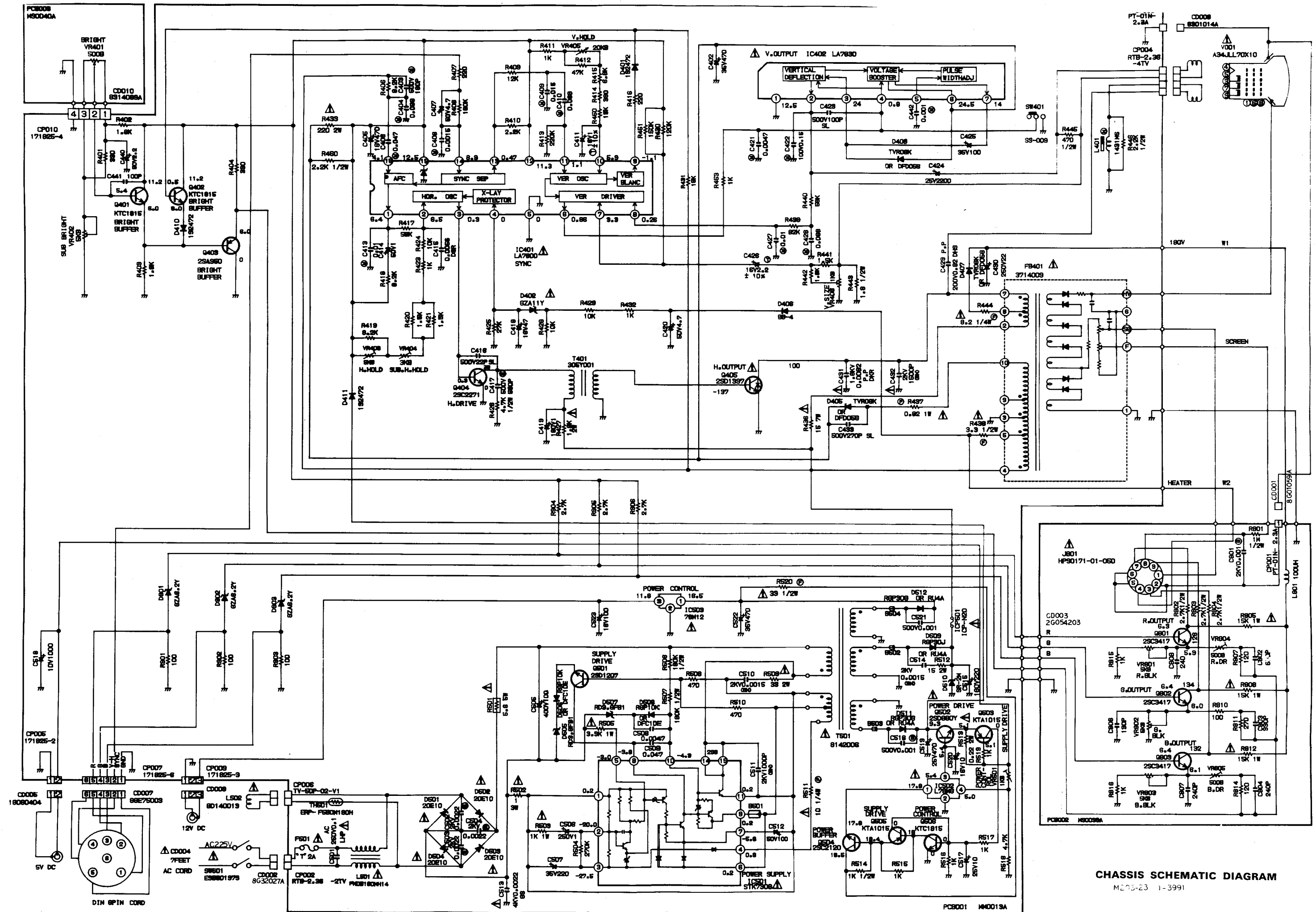
MECHANICAL EXPLODED VIEW



CTM644 MkII CABINET PARTS LIST

Ref.	Description	Part No.
1	Cabinet Front	170841/A
2	Knob Control	170304
3	Button, Push	170305
15	Handle	170312
16	Cabinet, Back	170313/A

*For parts not listed above
please refer to original manual





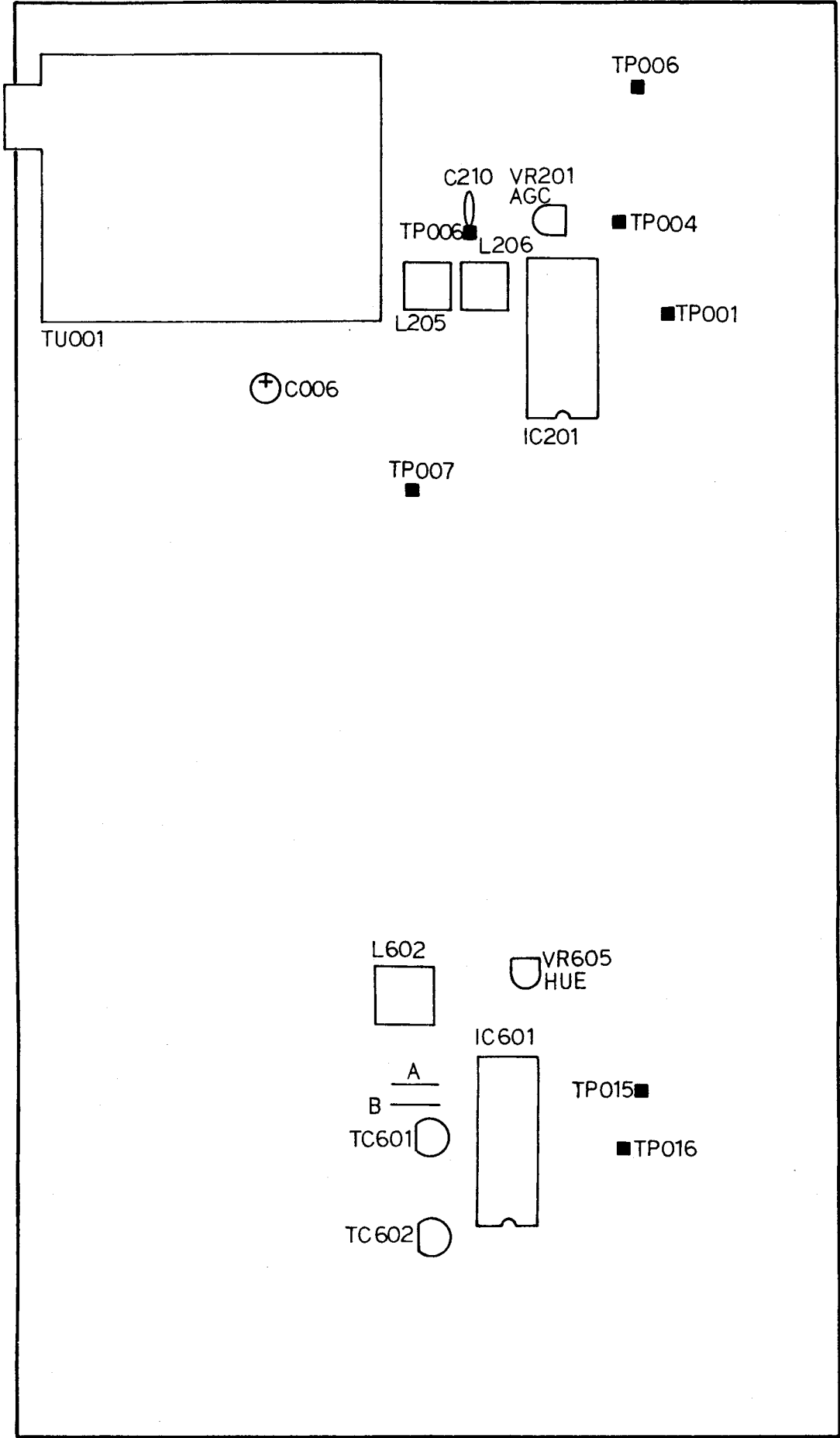


Fig.1

MP3 ALIGNMENT INSTRUCTIONS

Equipment required: D.B. O'scope; A.V.O.; Pattern Generator; Sweep Mark Generator.

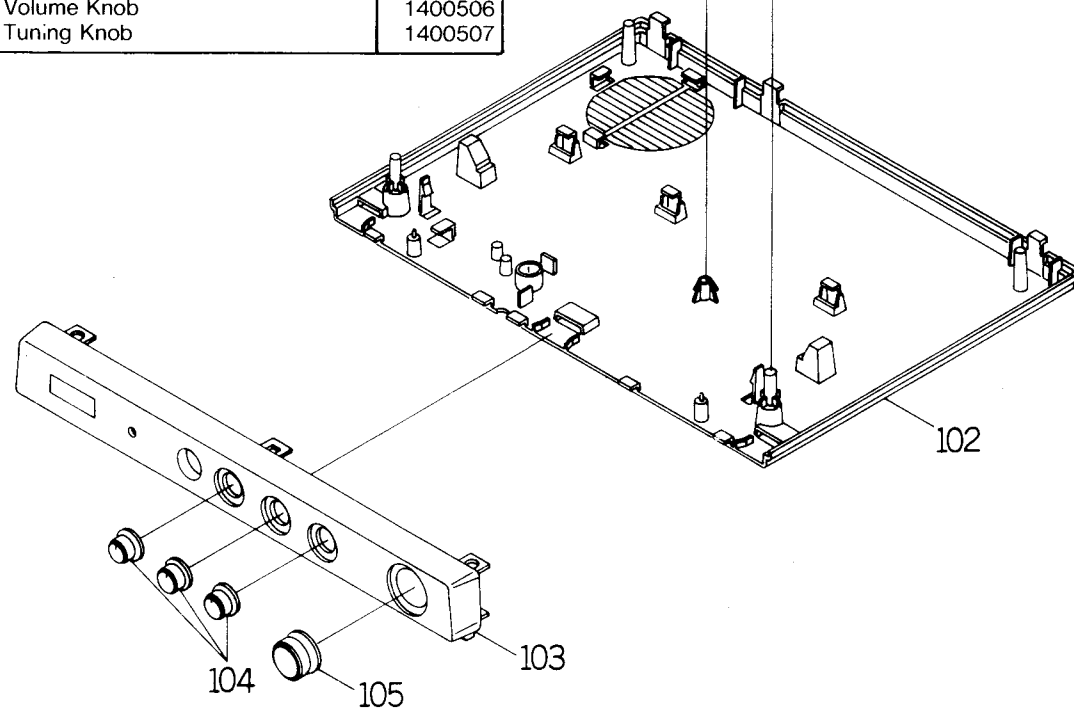
STEP	FUNCTION	SIGNAL IN	SIGNAL OUT	METHOD	REMARKS
1.	A.F.T. Adjustment.	—	T.P. on the Tuner Pack.	Adjust L205 to read fixed voltage at TP006 using A.F.T. Switch from off to on.	—
2.	R.F. A.G.C. Adjustment.	Test Pattern at 80dB.	T.P.005	Adjust VR201 to read 3.9V on A.G.C. pin on the Tuner.	—
3.	Hue Delay Adjustment.	Test Signal from Pattern Generator to Aerial in Socket.	At points "A" & "B" across Video Buffer circuitry Q602, Q603.	Set VR601-1 to max. wave form on the 'scope using VR605, TC6022, L602 to straight lines.	—
4.	A.P.C. Adjustment.	Test Signal from Pattern Generator to Aerial in Socket. Colour Bar selected.	'Scope TP015 & TP016.	Adjust TC601 to max. output on the 'scope.	—
5.	Video I.F. adjustment.	Test Signal from Pattern Generator to Aerial in Socket. Standard Signal.	O'scope.	i) Connect 10k Ω variable between TP004 & ground. ii) Adjust L206 to obtain max. output on the response curve "A" at 39.5MHz. iii) Connect 100 Ω between TP009 & PT010. Adjust IFT on Tuner to obtain max. output in Waveform "B". iv) Disconnect 10 Ω variable & 100 Ω resistors. Short C006 & C210 and reconnect sweep gen. to TP007 & TP006. v) Adjust L502 to place 39.5MHz marker on the ref. line on the response curve, "C". vi) Disconnect short between C006 & C210.	Connect H & V outputs of sweep gen. to test point TP001 and ground to TP007. Control signal in to prevent A.G.C. Set A.F.T. switch to on.

MP3 ELECTRICAL PARTS LIST

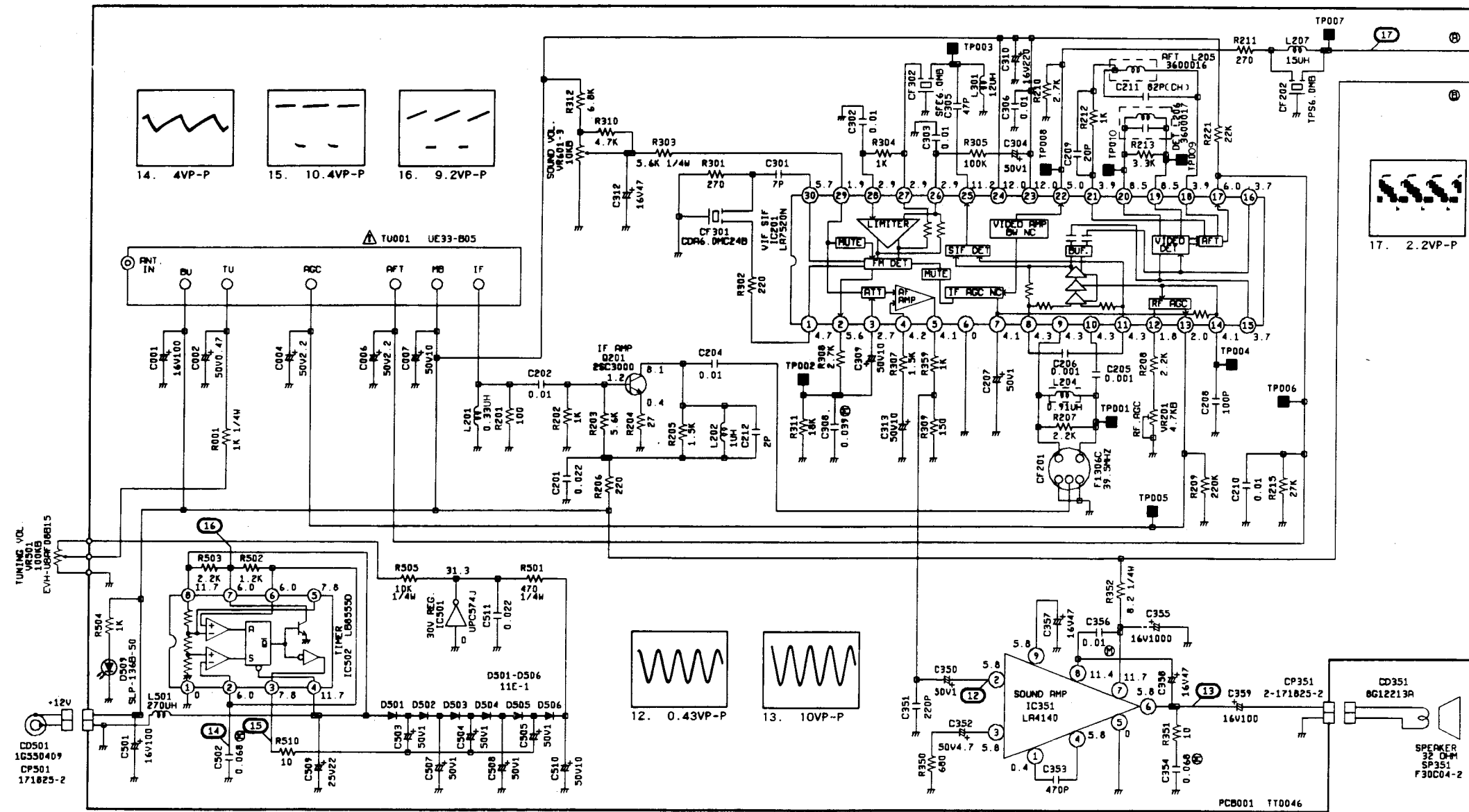
Ref. No.	Description	Part No.
IC's		
IC201	IC LA7520N	1409198
IC351	IC LA4140	1400511
IC401	IC M52684AP	1400512
IC501	IC UPC574J-T	1400513
IC502	IC LB8555D	1400514
IC601	IC AN5620X	1400104
IC602	IC AN5612	1400105
Transistors		
Q201	TR 2SC3000-AA	151718
Q401, 402, 601-603	TR 2SC945-T	1400109
Diodes		
D501-506	D 11E1TAI-T	1400508
D509	LED	1400509
D601-603	DZ GZA11	1400510
Coils		
L202	Coil 1.8 μ H	1400626
L204	Coil 16084SU Video IFT	1400663
L205	Coil 3600016	1400517
L206	Coil 3600017	1400518
L207	Coil 10 μ H	1400523
L301	Coil 12 μ H	1400519
L401	Coil 4.7mH	1400520
L501	Coil 270 μ H	1400521
L602	Coil 353001	1400522
L605	Coil 5.6 μ H	1409212
L606	Coil 47 μ H	1400524


Ref. No.	Description	Part No.
Crystals		
X601	Crystal NR-18 4.433619MHz	1400541
X401	Ceramic Oscillator CSB500F9	1400540
Sockets		
J601	Jack, DIN	1400525
Variable Resistors		
VR201	VR SF 4.7k Ω	1400526
VR501	VR Rot 100k Ω Tuning	1400527
VR601	VR Rot 10k+10k+10k Con+Col+Snd	1400528
VR605	VR SF 2.2k Ω Hue Con	1400529
Miscellaneous		
DL601	Delay Line Glass EFDEN645A31F	1400535
DL602	Delay ELT-10Z334	1400536
SP351	Speaker	1400537
TU001	Tuner U	1400539


Ref.	Description	Part No.
1	Cabinet, Top	1400500
2	Cabinet, Bottom	1400503
3	Cabinet, Front	1400504
4	Volume Knob	1400506
5	Tuning Knob	1400507



MP3 TUNER SECTION CHASSIS SCHEMATIC DIAGRAM



CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

19. 1.5VP-P

20. 2VP-P

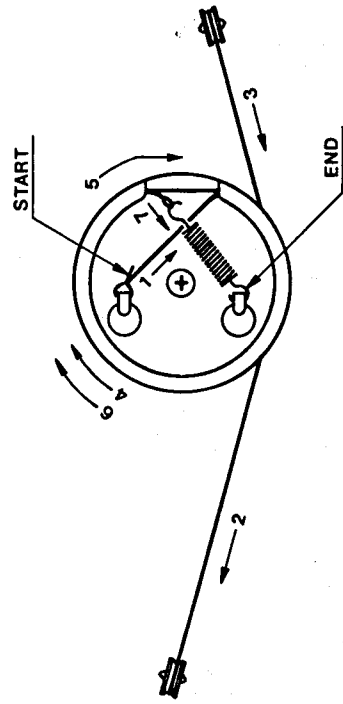
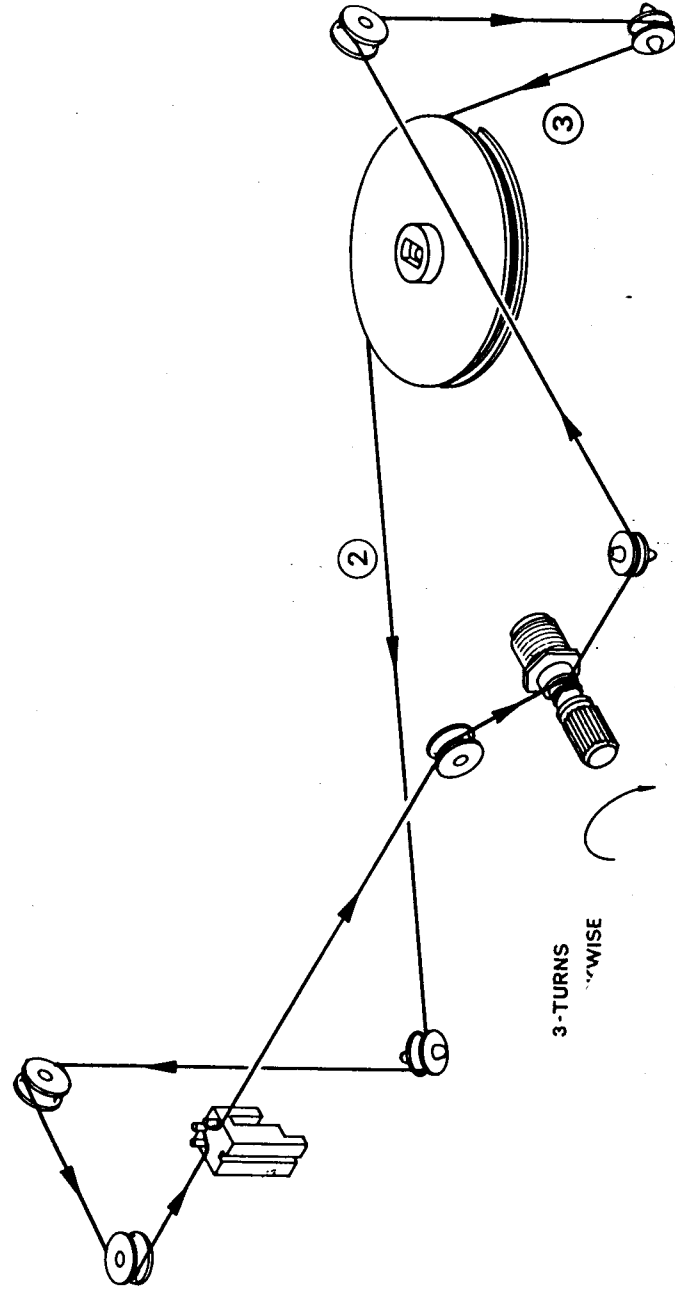
PCB001 T10046

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

CT-1 ELECTRICAL PARTS LIST

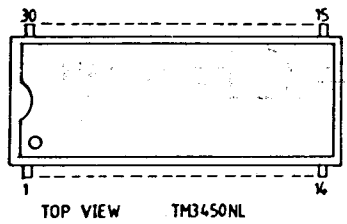
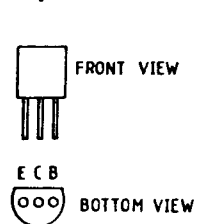
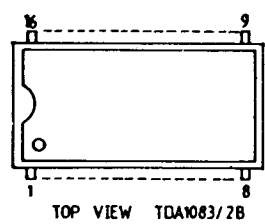
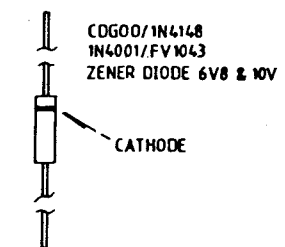
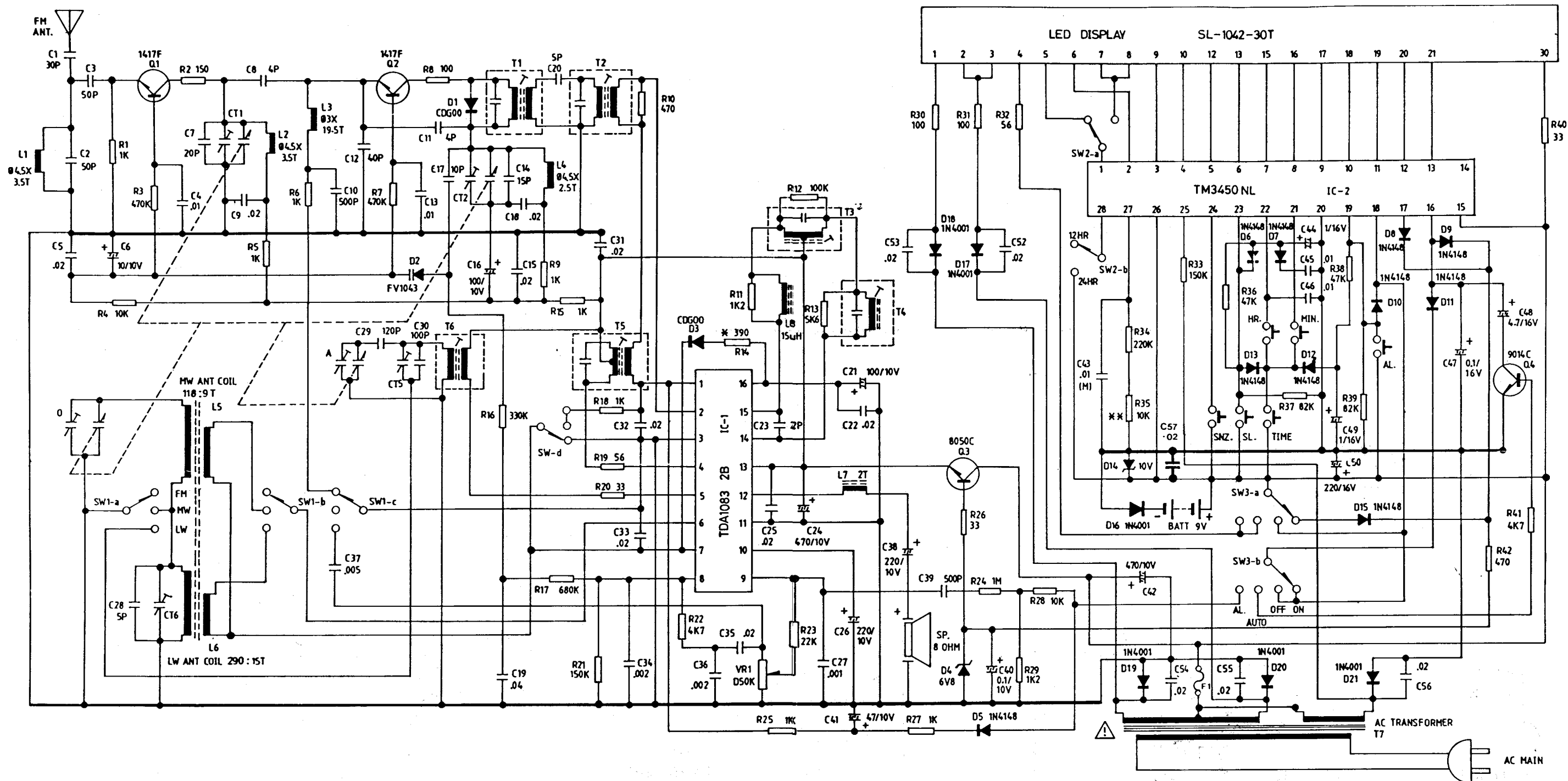
Ref. No.	Description	Part No.
IC's		
IC2	IC TMS 3450	160420
IC1	IC TDA 1083	160421
Transistors		
Q3	TR 8050C	160414
Q4	TR 9014C	160415
Q1, 2	TR 1417F	160416
Diodes		
D1, 3	D CDG-00	160417
D2	D AFC Diode FV1043	160418
D4	D 6.8V	160436
D5-13, 15	D IN4148	190715
D14	DI 10V	160419
D16-21	D Rectifier IN4001	192016
Coils		
L1, 2	FM Ant Coil 1033	160422
L4	FM Osc Coil 1032	160423
L3	FM Trap Coil 1008	160424
T6	AM Osc Coil Red 6001	160425
	Chock Coil 2T	160431
L5	AM Ant. Coil	160432
L6	LW Ant. Coil	160433
L8	FM IF Chock Coil 2005	160434
A	Trimmer 16pF	160405
T1	FM 1st IFT Orange F548-702985	160428
T2	FM 2nd IFT Green CEC-F14	160429
T4	FM Det IFT Pink F784-702987	160430
CT	AM/FM PVC 5376	160100
Ref. No.	Description	Part No.
Switches		
SW3	Slide Switch SK24F01-M9	160402
SW1,2	Slide Switch SK43D01-M9	160403
Fuses		
	Fuse T315mA	160409
Miscellaneous		
	Ferriter Bar	160404
	Speaker 8Ω	160406
	AC Transformer	160435
	Display Red	160407

CT1 DIAL WIRING



DIAL DRUM SYSTEM THREADING PROCEDURES.
(P.C.B. WIRING-BOTTOM VIEW)

CT1 SCHEMATIC CIRCUIT DIAGRAM



SWITCH :
SW1a - d
SW2a - b
SW3a b

FUNCTION :
FM / MW / LW
12 HR / 24 HR
ON / OFF / AUTO / AL

NOTE :

1. ALL RESISTOR ARE IN OHM $\pm 5\%$ 1/4 WATT UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITOR ARE IN MFD UNLESS OTHERWISE SPECIFIED.
3. VOLTAGE MEASUREMENT ARE RESPECT TO NEGATIVE GROUND WITH DIGITAL METER.

TM3450NL IC-2						VOLTAGE CHART												UNIT: VOLT											
PIN VOLT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
	6.4	4.7	9.6	9.6	6.4	4.7	9.6	6.4	9.6	9.6	4.7	9.6	9.6	NL	9.9	0.03	0.48	0.02	0	0	0	0	0	0	6.4	9.9	5.94	0	

TDA083/2B IC-1																
PIN VOLT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
FM	1.49	1.34	0	6.39	6.39	0	0	1.83	0	1.25	0	3.0	6.39	6.39	6.39	1.89
MW	1.25	1.22	0	6.39	6.39	1.2	1.25	1.54	0	1.25	0	3.0	6.39	6.39	6.39	1.53
LW	1.25	1.23	0	6.39	6.39	1.17	1.25	1.56	0	1.25	0	3.0	6.39	6.39	6.39	1.54

TR VOLT	Q1 1417F	Q2 1417F	Q3 8050C	Q4 9014C
VC	4.68	4.67	9.52	0.01
VB	1.23	1.16	7.06	0.74
VE	0.54	0.55	6.39	0

CT1 WIRING DIAGRAM

